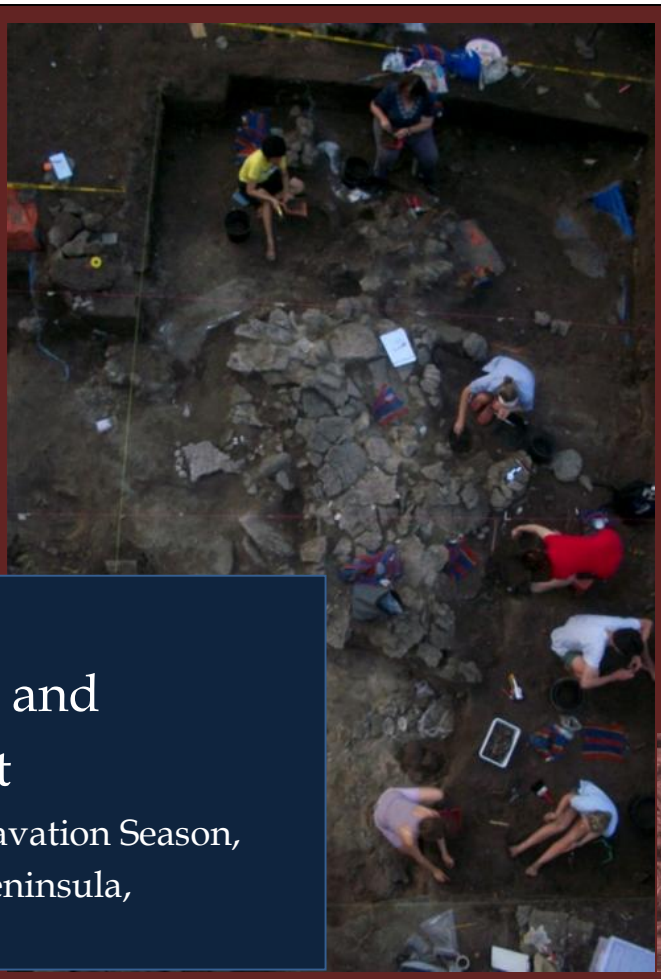

The Catanauan Archaeological and Heritage Project

Report on the 3rd Excavation Season, Catanauan, Bondoc Peninsula, Quezon Province

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6. Background

The Catanauan Archaeological and Heritage Project (CAHP) is a research initiative based at the Archaeological Studies Program, University of the Philippines in Diliman. Its goal is to advance basic archaeological research in the Municipality of Catanauan in the province of Quezon. It serves as a bridge to earlier studies in the Bondoc peninsula and a starting point for further research that will eventually generate a good representative sample of the archaeology of the entire Bondoc peninsula. The other set goals of this project is to substantially contribute to the improvement of our knowledge of Philippine history, the understanding of Southeast Asian regional cultural history, and the development of a heritage consciousness amongst the Catanauan communities.

Our project focuses on the third class municipality of Catanauan, a mostly coastal community located within the western region of the Bondoc peninsula. The town proper, and most of its seaward jurisdiction, faces Mompog Pass and the island of Marinduque; to the north is the municipality of Lopez, to the northwest it shares a border with the municipality of General Luna, and it northeastern border is the municipality of Buenavista. On the south and southeast is the municipality of Mulanay. According to the 2000 Philippine Census, the town of Catanauan has a population of 57,736 people in 11,283 households (www.Catanauan.gov.ph; www.wikipedia.org).

In 2006, Mr. Deo Cuerdo, a concerned citizen and cultural heritage advocate from the town of Catanauan visited the Archaeological Studies Program at UP Diliman to report accidentally uncovered archaeological materials due to development projects, small scale sand quarrying and illicit diggings. He was introduced by the program to the National Museum's Archaeology Division Chief, Wilfredo Ronquillo, who promptly helped deputize Mr. Cuerdo in behalf of the National Museum. The Cultural Properties Division of the Museum was also requested to investigate the report. Mr. Cuerdo has since become a full member of the research team.

The confirmation of the reports by the National Museum further prompted the principal investigators of the project to inspect the archaeology reported from Catanauan and assessed its potential for long term research work. The results of the assessment done in 2008 convinced the team of the suitability of Catanauan for long term problem oriented research (see Paz, Ragragio and Medrana 2008). Two excavation seasons have since been initiated under the project with substantial results (Paz et al. 2008;Paz et al. 2010). The findings of our work has led to a deeper appreciation of the significance of the research sites to the study of ancestral cultures, and the lessons derived from the practice of grassroots heritage work. This report chronicles the results of the third field season of the project.

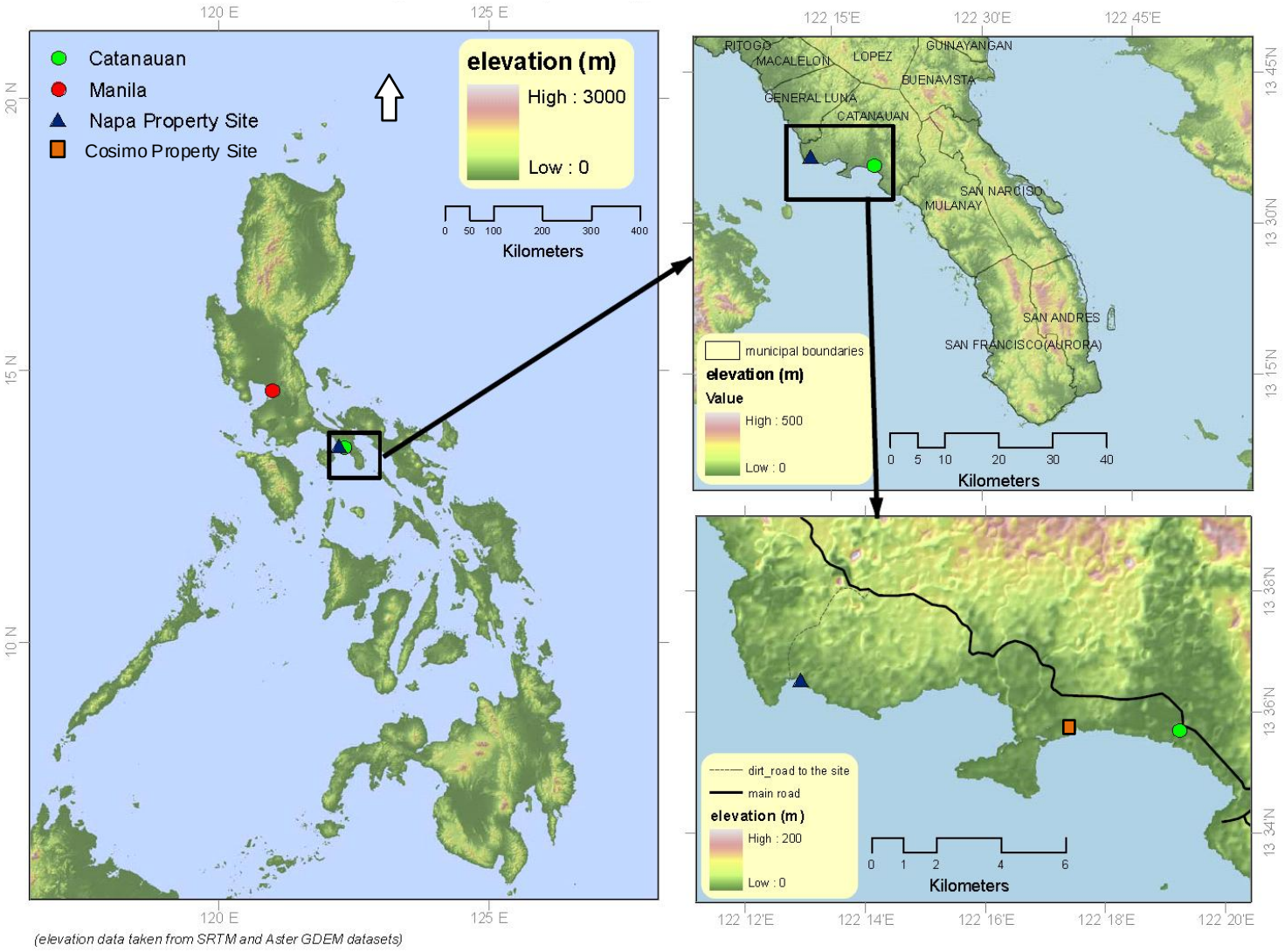

Figure 1. General location map of project area

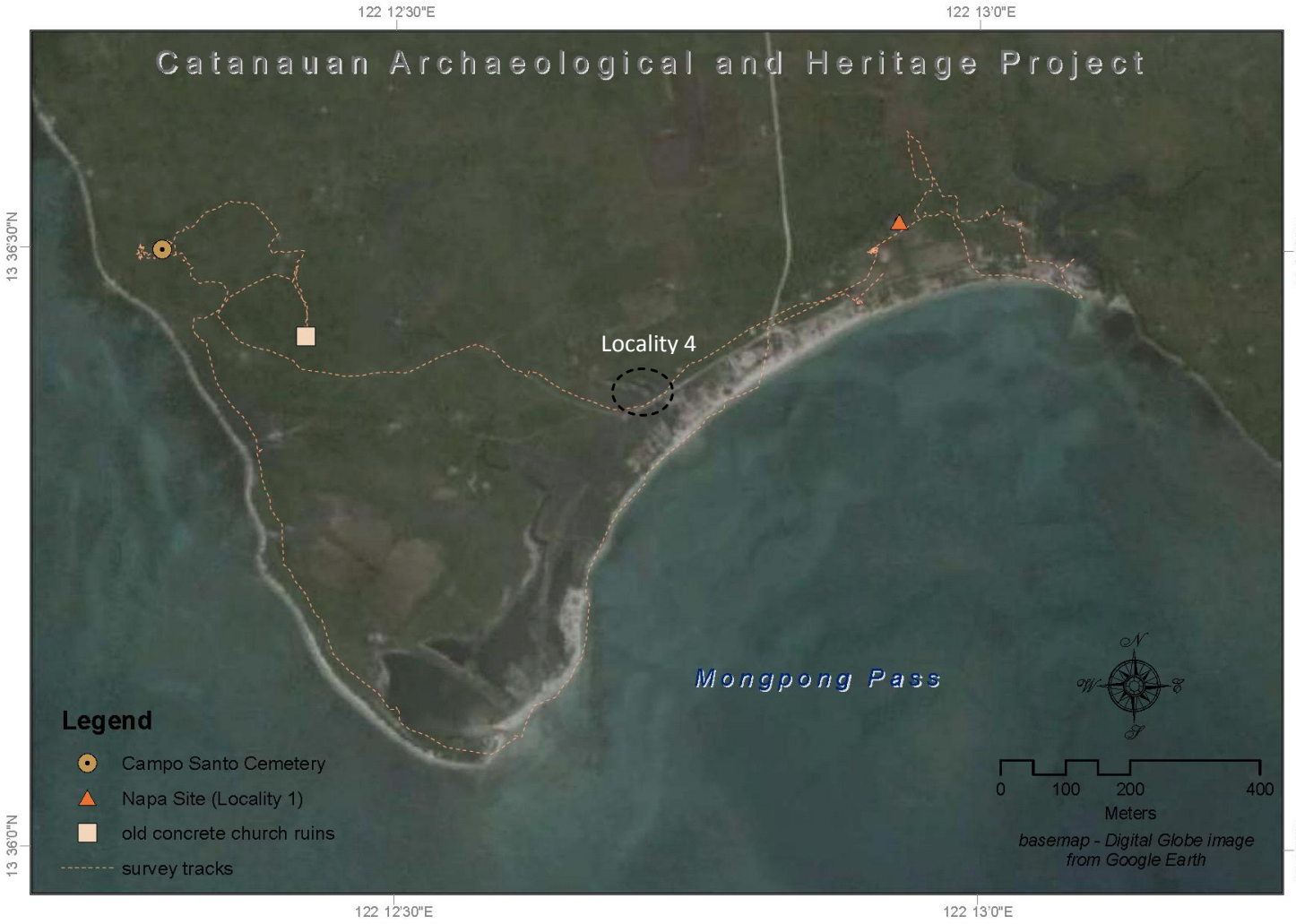

Figure 2. Map of Tuhian indicating Locality 4 and general areas of interest

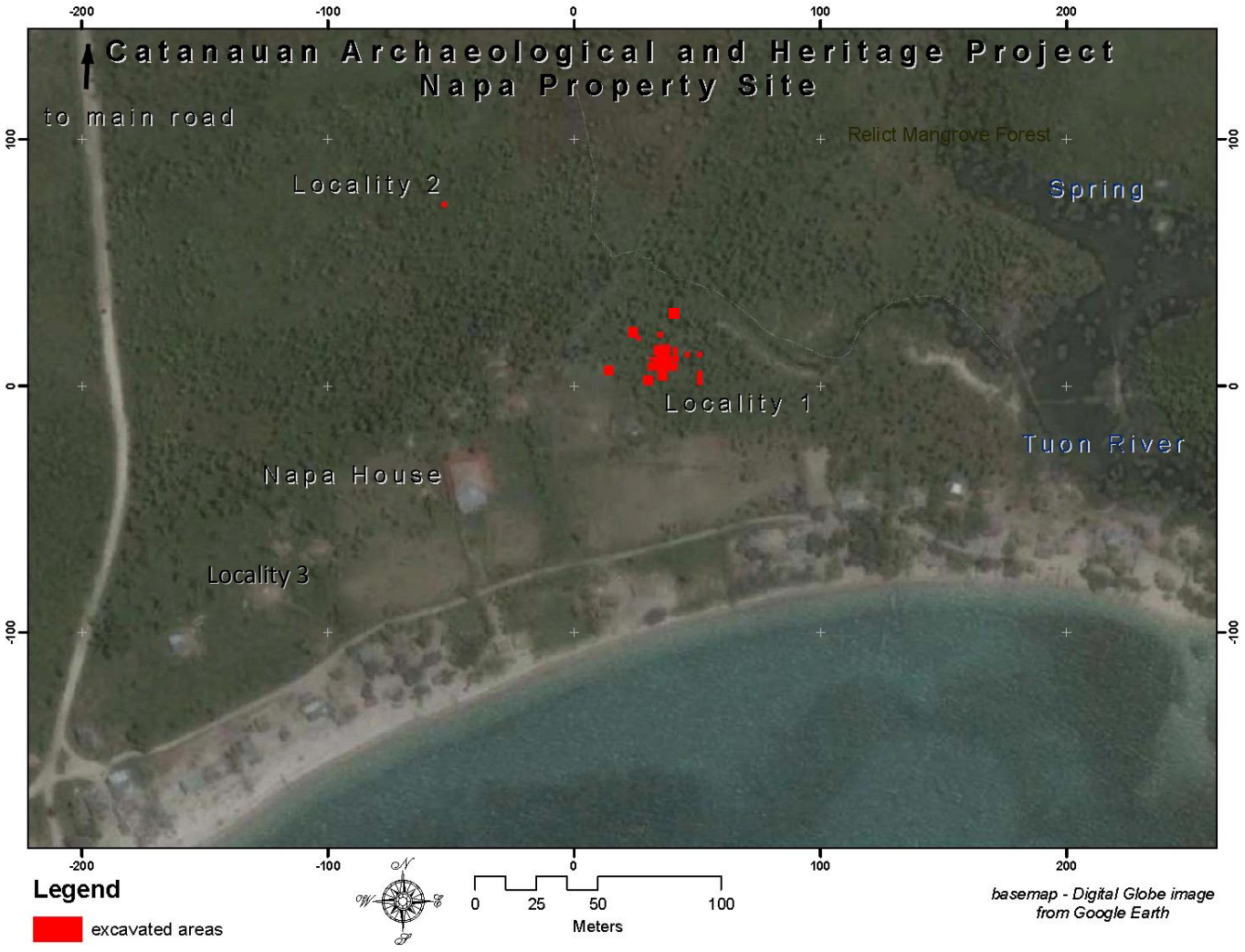

Figure 3. General location of excavation at Napa site Locality 1 and 2

7. Objectives

In this third season we built on the previous season's advances. The objectives set, therefore, were:

1. Continue the excavation of Locality 1, Napa site, with the aim of further exposing the stone markers and retrieve the jar burials; expand the excavation at Locality 1 northward to investigate suspected habitation remains exposed at the Trench 15, Locality 1 excavation, which may be associated with the burial ground;
2. Continue the excavation of Comiso site with the aim of relating this site to the Napa property sites;
3. Improve on our current knowledge regarding the sequence of human occupation of Catanauan;
4. Provide a venue for the training of undergraduate students from both the University of the Philippines and the Australian National University;
5. Further improve on the heritage work going on in Catanauan.

8. Methodology

In preparation for the field season, a new National Museum authorization was applied for under the name of the project director Dr. Victor Paz (see Appendix A). The owners of the property concerned were again approached to ask for permission to continue the work, namely, the Napa family (for Tuhian) and the Comiso family (for Kanlagkit). The local government through the office of the municipal Mayor and the Barangay Captains were informed of the continuation of the project.

The field method is consistent with the two previous seasons. The approach used for excavation followed a technique that could be described as a context recording system of removal of archaeological/sedimentary material. It is a method of removing the deposited sediments/archaeology from the youngest to the oldest in its natural deposition (see Harris 1989; MOLAS 1994). In this method, all sediment types, lens features, human and natural structures, cluster of artefacts, and dug-up features were given numbers, which then was organized in a matrix that showed the formation sequence of these deposits. The spatial relationships of these features across the excavation trenches, and across excavation trenches within the archaeological site were then plotted, recorded in excavation forms, plan drawings, profile drawings, digital imaging, and excavation record books. These records are now part of the archival record of the site.

At the Napa site, the two meter by two meter grid established in 2008 was revived based on the same Datum Point (DP) — established approximately 10 cm above sea level. For each excavation trench a Local Datum Point (LDP) was established with values known in relation to the DP. The depth measurements were taken using these reference points.

The new excavation trenches were chosen in pursuit of the objectives set for the season. Most of the excavation areas were opened to completely expose the stone markers and completely excavate these features. The same methodology was applied in the excavation of Comiso site and the Campo Santo area. Further survey of the Napa property was done primarily through informant work. Small finds recovered from the sites were mostly washed or cleaned with a dry brush and given accession numbers following the National Museum of the Philippines system of artefact inventory. A log book was kept to record the day to day activities of the excavation.

At the end of the excavation season the spoil heap of each trench were back-filled. The trenches were lined with plastic sheets or sacks with a piece of paper and a coin inside a sealed plastic bag. On the paper is the following information: the name of the project, what calendar date the project started, and the names of the excavator of the trench. This tag is always placed at the deepest end of the excavation trench.

Lectures and discussions were held nightly amongst students and interested members of the community.

9. Results

At the end of the season, three sits were investigated. At Napa site Locality 1, seven trenches were reopened and two new trenches established; with the consolidation of several trenches under the feature labels SM1 and SM3, with SM2, together with another cluster of disturbed stone markers as hypothetical. At the Campo Santo site, three trenches were investigated, and at the Comiso site, previous trenches were reopened and expanded.

Artefact type/ material	**Current number of accessioned items**
Earthenware/ pottery sherds (general)	17,418
Shells (general)	3,880
Bones (general)	563
Beads (general)	674
Coral rock covers (complete/whole)	4
Corals (fragmented)	163
Stone (general)	131
Wood (general)	11
Pumice	6
Glass/ 20th century materials	78
Obsidian	3
Deer antler	3
Worked bone	3
Earthenware pipe stem	1
metal	121
Ceramic tile	1
charcoal	21
Others (miscellaneous)	21
Total	23,102

Figure 4. Accessioned artefacts from Locality 1

Napa Site Locality 1

The Napa site has a National Museum site code of IV-2008-Q5 that covers all localities investigated within the property, including the Campo Santo area. Locality 1 remains the central focus of the archaeological investigation in Catanauan. It continued to reveal this season more significant archaeological information. Distinguishing the conscious designs of clustered burials, the trench references that included these markers were changed to facilitate the recognition as to which coral stone marker formation each jar burial belongs.

Stone Marker 1 Feature (SM1)

SM1 is a large cluster of arranged coral slabs and rocks [c.152] encountered in grids between N5 to N7 and E16 to E18 at about 20 cm below Datum Point (BDP). The realization that these features formed larger markers led to the current relabeling and a more sensitive approach to these features. The feature is about 5m in length and 25m in width with the longer dimension oriented approximately along the northwest-southeast axis. SM1 was partially exposed last season and further investigated this year. In the last season, we placed finely sieved light yellowish brown sand over features within the stone marker as a highlight or contrast for fast detection when re-excavation resumes. As soon as the trap covering was removed this season the light sand layer was exposed and satay sticks with flags were used to indicate the precise position of known jar burials highlighted by the sand. Human bones were marked using undecorated satay sticks. The stone markers were not immediately removed until mapping of t heir position was completed.

The sediments above and around the feature was further brought down to 30-50cm BDP especially at the north-western portion. This exposed a lens of shells [c.355], mainly composed of gastropods, at about 40-50 cm BDP. An inspection of the remaining bulk at the northern edge of SM1 indicated that the lens extends to this area. The slow systematic removal of coral slabs was necessary to further understand the construction of the stone marker. The initial slabs and rocks taken out along its western portion uncovered six jars with human remains inside, mostly of sub-adults. Three of these jar burials were completely recovered while only the human remains from inside a fourth jar were retrieved. All these jars were intact but heavily fragmented.

The northern edges of the markers were delineated taking out sediments in these previously unexcavated portions. At N5E17 section, the southern end of the marker, the surface was recorded as dark brown loose sandy silt [c.52]. Immediately beneath was c.92, a dark grey to yellow brown sandy silt of high compaction. Shell inclusion in this layer was minimal as compared to what was previously observed in other trenches. In the northern end of the marker a thin layer of shells [c.352=c.113] was exposed past the end of the stone feature. This layer is gradually sloping to the east with many plain pottery sherds. Towards the bottom, bone fragments and larger pottery sherds began to emerge which sits pm top of the next sediment layer [c.355]. Context 355 was soft yellowish brown sandy silt with numerous decorated pottery sherds and scallop-like shells. Particularly many and larger in size are pottery sherds found in the northern part of N7E16. Disarticulated fragmentary bones were exposed side by side with large shells in the southern portion of N6E16. An interface thin layer of sediment yielded small pieces of slag. Below c.355 was mid yellowish brown fine grained soft sediment [c.356] with moderately high concentration of

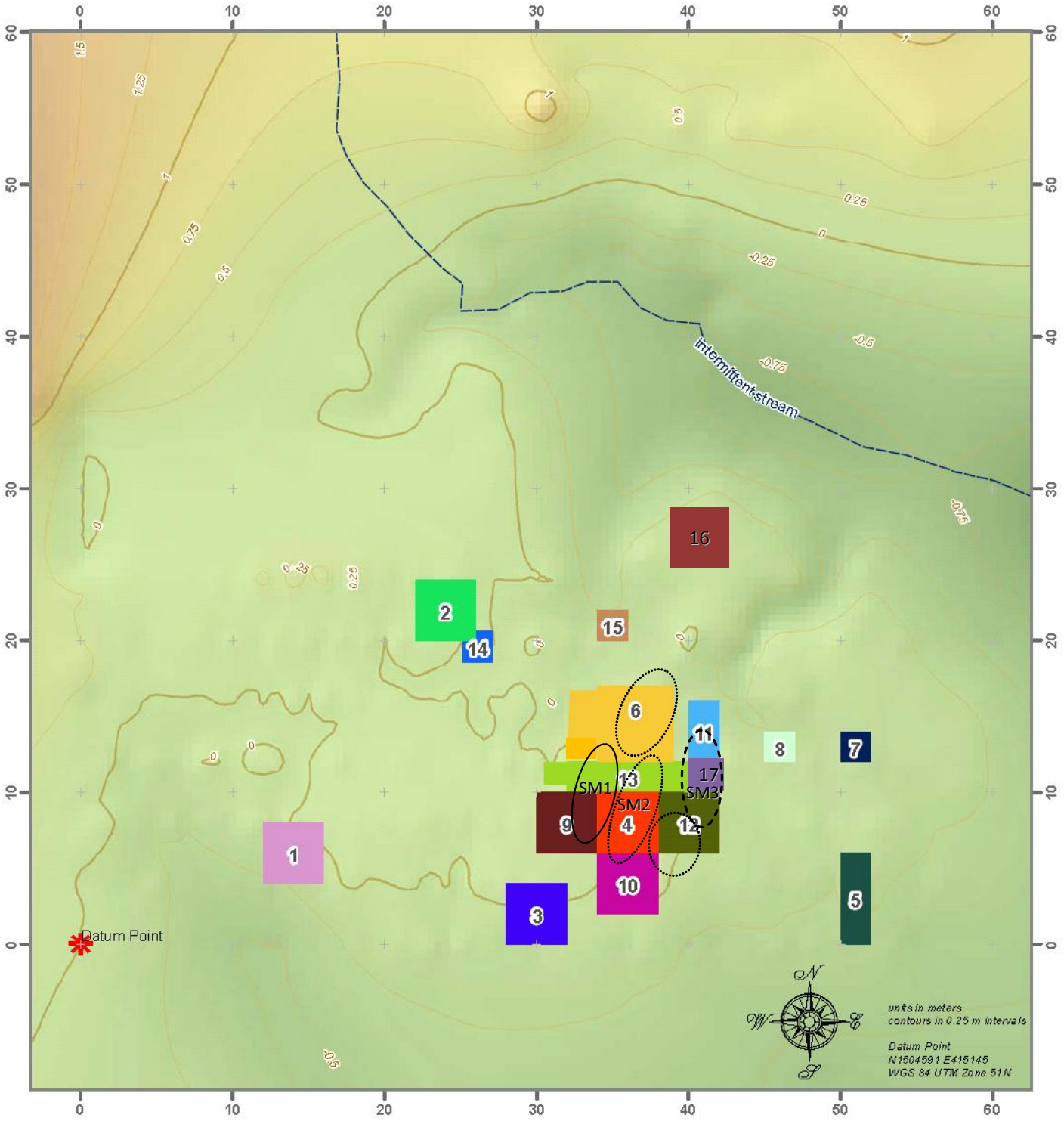

Figure 5. Location of Locality 1 trenches and Stone Marker features

Shells of various sizes and species. To the northeast corner below this layer was moderately sorted, fine grained light yellowish sand [c.358]. Along the limits of the stone marker was a shell lens [c.359] of mostly gastropods extending from N8E16 to N7E16-E18. Below this layer was c.360, the yellowish brown sandy layer similar to c.127 recorded in the other trenches from the previous seasons. Within this matrix is the grid lines N7E16 and E17 an extended burial was exposed to the northwest of the coral stone feature. The burial [c.361] was oriented SW to NE (from head to feet). The foot bones were first to be recorded and recovered without exposing the entire skeletal remains. Apparently the excavator was not expecting to find an extended burial and was thinking that these bones must have come from one of the jar burials within the stone markers. The cut of the grave [c.362] — not immediately detected — was a faint mottling in the shell midden [c.356]. The cranium was intact albeit appears to be compressed while the mandible was largely intact. Most of the bones were found intact with the left arm flexed across the right over the pelvic region. Interestingly the clavicle appears vertical indicating a confined burial — perhaps, a constructed grave. This person must have been wrapped or put in a tight coffin before being buried. Across and beneath the burial were pottery sherds and shells including a large shell above the left thigh immediately below the pelvic region. Except for a small conus shell found in the mouth cavity no grave good was found in the burial. The remains belong to an adult male about 35-40 years old upon death, probably heavily muscular and must have been subjected to immense, continuous physical stress. This is evidenced by arm bones unusually bowed due perhaps to carrying heavy loads.

Above the stone marker particularly towards the center, more bones including a fragmentary mandible was found as well as some metal slag. The marker itself is a thick pile of coral slabs and rocks; the excavators were not able to complete removing them due to time constraint. Possible jar burials underneath therefore were not completely exposed and have to be set aside for the next excavation season. However, delineation was done for possible jar feature, designation of context numbers is reserved until all jar burials are fully exposed. The jar burials which have been previously uncovered including some which have been given context numbers in previous seasons were retrieved.

The jar burial c.320 was exposed beneath the coral slab in the western part of trench 13 at N6E17. This burial was part of a cluster of jar burials under c.152 or SM1. The jar was embedded in c.360, the loose, yellowish brown sandy silt, the same sediment where c.361 was recovered. At the highest point, the jar measures 34cm below DP and the bottom was about 55cm below DP. Inside the jar were heavily fragmented bones — most of which except for a fragmentary long bone were hardly identifiable. The bones belong to a neonate. Fragments of pots not belonging to the jar were also found inside it. From the top, the

sediments were dark yellowish brown sandy silt which gradually turned lighter towards the bottom. When all the sediments and inclusions have been taken out, it was revealed that the bottom eastern side of the jar was missing. Because very little was found inside the jar yet the sediments were homogeneous it was inferred that its contents must have been disturbed in antiquity — probably pushed down by root action.

Trench 13

This connecting trench for Trenches 6 and 4 established the direct relationship of the jar burials and stone markers found in both trenches. Indeed the coral/stone slab markers collectively labeled c.152 form a deliberate cluster of stone slabs and rocks, elongated with curved sides. With the intention of clearing the sediments first to expose the feature in its entirety thus giving a clear picture of how it originally looked like, the backfill removed to expose the sediment still covering c.152. Context 331 and c.319 are assemblages of artefacts initially worked on and recorded last season. It was also made clear in the re-excavation of this trench that the cluster of jar and stone markers found in this area, including most of those from Trench 4 and Trench 6, where not part of the SM1 feature.

The jar burial c.331 is embedded in c.48 adjacent to a neonate jar burial [c.308] excavated in the northern half of the trench at N6E18 grid. The walls of this jar were found crumbling to the sides while the slab cover had collapsed inside the jar itself. Exposed bones were recovered — some of which including a cranial fragment and long bones were found outside the vessel. What remained of this partially excavated jar was reburied cautiously last season. This season the excavator recognized that the burial jar was badly damaged and therefore was given a low priority for reconstruction. The human remains recovered from this jar gave an impression that it was a secondary burial. Despite the bad condition of the jar, many bones still survived including 1 radius, fragments of 2 ulna and 2 fibula, pelvic bones, hand and foot bones, portions of ribs and vertebrae, 1 clavicle, fragment of scapula, medial maxillary incisor, 2 molars and 1 premolar. Aside from the human remains there were also artefacts: an obsidian flake, metal slag and large round fossilized shell pendant. All these materials were found at the very bottom of the jar.

A burial jar c.319 was found in the southern half of the trench at N5E19. This jar has by far the largest coral stone lid seen on site. The lid with at least two layers of stone above it was grooved underneath to fit the rim of the jar. Adjoining this jar to the northeast is c.306, a kettle sized pot adjudged as a votive pot. When the cover of the jar was lifted, a large rim fragment was exposed. It was heavily disturbed and only the eastern side of the jar remained intact. Pottery sherds were found scattered around the western portion of the jar

with a few fragmented bones. Because this jar was uncovered beneath a mahogany tree, it is understandable to find it severely damaged. At a closer examination however, the root work could not possibly be the cause of the disturbance. The layers of the stones prevented the roots from penetrating the jar. Bones were found wedged between the roots outside the presumed barrier of the jar. This suggests a disturbance at an earlier time long before the current trees were planted. This could be a looting activity which befell burial jar c.83, found emptied from the eastern side and whose other half was also missing. Indeed c.83 which was excavated last season sits directly southeast of c.319. In the area between this two jar burials (closer to c.319) more bones were found scattered including cranial fragments, teeth, and lone bones. Corroded metals including a knife blade bent in half were possible inclusions found side by side with the fragments of small pots. Since two possible sources are being considered, it is difficult to determine where these bone and artefact assemblages belong. Moreover, the proximity or detachment of artefact to the vessel might have actually been brought about by root action. For this reason, this general assemblage was assigned "c.354" treating it as a matrix independent to both c.319 and c.83. Thus c.354 represents a disturbed and scattered burial from the surrounding area. The bags of artefacts from last season reburied with the jar labeled c.319 and c.48 are recorded as such because they were found directly associated with c.319. With scarce evidence to work with, it is impossible to establish whether c.319 is a primary or secondary burial.

The three jar burials [c.334,333 and 320] found in the western extension of the trench are now assigned to SM1. These jars found as part of a cluster were left together with the stone covers *in situ* last season. The consideration was to map the entire *in situ* jar burials with particular emphasis to their covers to resolve if there had been a deliberate design or arrangement.

Stone Marker 2 Feature (SM2)

There is still no clarity whether we are dealing with one cohesive marker or more under the label SM2. The area is known to have many jar burials and large slabs of coral stone, however, aside from the substantial impact of mechanize farming on the area, the elicit digging done before the start of the project makes it difficult to be certain at this stage. Nevertheless, we shall treat the area covered by Trench 2,13,6 and 12 as belonging to a hypothetical SM2 until we know better. Two jar burials, c.301 and the partially exposed *in situ* jar burial [c.355] in the south western corner last season were exposed but not completely excavated. The jar c.301 is a burial located beneath c.46 or coral slabs at the southern section of the trench. The coral slab covers have been moved around by mechanized plowing or root action but close enough to be counted as part of a single context. Despite damages sustained by the jar due to turbation, it was largely intact. There

were human bones and associated artefacts recorded and recovered last season (see 2010 report). On the northern part, coral slabs [c.35] contemporaneous with c.46 were also recorded but not removed due to time constraint. Separating this two coral slab contexts was a tree stump cut last year. In the southwestern corner is c.335, a jar burial whose western half was exposed in the northeastern corner of Trench 10.

When the trap separating the backfill and the unexcavated portion was lifted, measurements and recording and mapping of exposed artefacts were done. The last exposed surface was partially cleaned and the tree stump was removed. The coral slabs in the southwestern quadrant were found to be cutting through Trench 10; c.35 on the other hand appears to cross to Trench 11.

To follow the stone marker in the southern part of the trench, which appears to be extending to the east, a 1m x 1m southeastern extension was decided to be opened. A rib bone and a long bone were found in c.31. Animal bones, pottery sherds and some bone fragments were recovered in this extension before reaching and finally define the edges of the stone marker. The coral slabs and stones were then mapped and assigned a locale according to which cluster or formation they belong before eventual removal for further investigation.

Thereafter, complete retrieval of c.301 resumed. The jar was emptied from the top recovering what remained from last year's excavation. Long bones, a part of a cranium and some possible fragments of skull were immediately seen upon partial clearing. Towards the bottom two mandibles and three humeri were found. This is a secondary burial vessel containing two possible human remains. With all the bones retrieved and recorded, the empty jar was then taped and wrapped in plastic film for future reconstruction. In the southwestern portion of the trench c.355 was found heavily fragmented. The rim of the jar has collapsed inside. Small and long bones and fragments of metals were jumbled with pottery sherds. This might have been a primary burial because further underneath, what appear to be articulated humerus, radius and ulna were uncovered. A rib bone and some unidentifiable bone fragments were likewise found. It was however not established if this burial is indeed primary because most of the bones are not found while the bottom of the jar was missing. The recoveries of an unfinished blue glass bead suggest a bead making activity in the locality.

In the northernmost extent of Trench 12 at N4E21 an extended burial [c.403] was exposed just beneath the coral slabs. Interestingly, among the extended burials found in the site, this is the only one found cutting through the stone marker. This was exposed while investigating the stone marker from this section and the scattering of seemingly dragged

(or ploughed pottery) sherds towards the south. The grave cut [c.404] was found below the shell layer [c.31] within the dark greyish brown sediment [c.43], a layer initially thought to be natural but was later dismissed as a result of disturbance. The third of four extended burials so far found at the site, it was only partially exposed due to time restrictions; having found the burial on the last day of excavation. Before backfilling the following was recorded: extended articulated left radius and ulna, rib fragments, articulated right humerus, flexed radius and ulna, fragmented pelvis and femur; all heads and distal ends of lone bones have been broken in antiquity. About 50 pieces of red and yellow beads were found above the remains which are believed to be associated with the burial.

Stone Marker 3 Feature (SM3)

The SM3 is a confirmed large stone marker made of coral slabs and rocks. It is within Trenches 11,17,17 extensions, and the northwest corner of 12. Working first within what was exposed in the last season at Trench 11, the backfill was removed and the extent of the 2010 excavation was re-exposed; composed of a portion of the *in situ* stone marker [c.341] with a Tridacna spp. shell sticking out underneath, the unfinished excavation of jar burial c.332, and the surface of c.327 and c.324.

At the northern quadrant of Trench 11 there was an absence of stone markers. This absence allowed for a fast excavation of the area in the attempt of revealing deeper stratigraphic sequences. What was revealed was by then a familiar sequence of deposits; the surface at the time that the area became a burial ground or the sediment usually found directly underneath the stone markers [c.515=c.126], below this layer was a light brownish yellow sand [c.127] that was void of artefact association. The excavation did not exceed depths beyond 2.5 metres below DP.

The SM3 marker was followed by expanding the area of excavation southwards. An entire grid square (N6E21), with portions of N7E22 and N6E22 opened until there was certainty the edge of the marker was reached. Overall, we have recorded 14 jar burials underneath c.341 stone marker with four of these burials totally excavated. One of the excavated jars, c.325, revealed clear evidence of how it was buried by cutting through c.515. Inside another jar [c.504] was an adult human cranium, with most of the skeleton missing; a Tridacna spp. shell was placed just by the side of the mouth of this jar. Not all of the exposed burial jars are in a good state of preservation. Many are highly fragmented or squashed. However, we left for next season several jars that seem to be in condition and await further investigation.

Trench 15

Further excavation and expansion of the trench was imperative for this season's excavation. This was so because of the diverse assemblage of cultural materials, e.g., various forms of decorated and plain pottery sherds, consumed shells, and animal bones, exposed last season. There was also the presence of a large pit [c.339] at the southeastern quadrant of the trench. The pit was cutting through c.317 and covered most of the southeastern quadrant; it was also associated stratigraphically with the jar burial complex. The trench was extended northward and southwards accommodating the supposed boundary of the pit and uprooting tree stumps at both sides in the process. The extension was leveled down to the last exposed sediment until the extent and the bottom of pit c.339 was reached at 128 cm below DP. Throughout the trench animal bones of which mostly came from pigs along with some shells and pottery sherds were recovered. A hammer stone and a glass bracelet shard were also found embedded in c.317.

Beneath c.317 is c.366, very loose, coarse light yellowish brown sand containing pottery and shells that gradually diminishes towards the deeper end of the context until only the shells were left. Within this previously believed to be sterile yellowish sand c.366, an extended burial was located in N12E17. The cut was labeled "c.369", the fill "c.370" while the burial itself was labeled "368". The cut however was problematic because what initially was considered the start of the grave cut was actually leaching observed in the western wall of the trench that has the same sediment above it which is c.317. It is hypothesized that the burial may have used the same sediments as a fill and that the action of removing and replacing the sediment may have created a weak point right above it. This could also explain why no cut was observed in the course of excavating the burial. Yet this context is still recorded as c.369 to indicate that leaching did happen.

The burial c.368 was found at the depth of 102 cm below DP. The body was oriented northeast and the face's orientation was northwest. The cranium was about 114 cm from the north wall and 92.5 cm from the eastern wall. Due to time constraint the retrieval of the unexposed bones is set aside for the next excavation season.

Based on cranial morphology the remains belong to an adult female; all adult teeth including the third molar have erupted. The skeleton although nearly complete appeared to be poorly preserved. Because of this condition, the cranium and the mandible broke in many pieces during recovery. Humeri, radii and ulnae were present. Slight flexures of the leg elbow and the right arm were observed with both hands placed over the pelvic region. Both clavicles were found in vertical position. Most part of the vertebrae except for the cervical part has disintegrated along with some very fragile ribs. The scapulae were also

poorly preserved. The phalanges and the metacarpals were present. An incisor — later dismissed as not part of the remains — was found associated with the skull.

To the north of the burial c.368 (right arm) was a very thin lens of rectangular mid-greyish yellow sand [c.372] with abraded pottery sherds. When part of this feature was sectioned, the mottling broke into two different areas and eventually disappeared. Prominent discoloration of sediment in the left side of the arm was also recorded. This mid greyish yellow feature [c.374] was 22 cm wide found at about 113.5 cm below DP. In the southern side of the skull was c.371, mid-yellowish grey sediment which is the same as c.370, to the left side of the head was a rectangular and very thin lens of ashy grey, very fine sand [c.372]. It may be likely that these two rectangular features represent small post holes for a structure built purposefully for the burial of the individual.

Except for two pottery sherds and a single small shell inside the mouth cavity, no other artefact or grave goods was found associated with this burial. In order to preserve the unexcavated portion of the burial for the next season, dark spoil sediment was placed over the grave, over which a bubble wrap was placed followed by another layer of dark sediment.

Trench 16

This trench was excavated to look for settlement remains or at least features that were similar to the structural remains uncovered in Trench 1 during the first season. It was placed on the sloping area immediately south of the stream and to the north of the identified burial ground. Informed by the density of pottery and shells in Trench 15, it was hypothesized that this area may have been the location of the houses associated with the burial ground.

The trench occupies the grid N14E20, N15E21, N15E20 and N15E21. Measuring 4m x 4m, this trench did not produce clear domestic evidence as hoped for, save for a combustion feature [c.461] found along the south wall of the trench within the layer of shell concentration. Instead, an extended burial was located at the northwestern quadrant within the matrix of what was plainly accepted as a shell midden. The trench in general shows many evidence of physical and bioturbation including slope erosion, rooting and animal burrowing.

Eleven contexts were recorded in this trench including three major sediment layers. The surface [c.451] was recorded as loose dark yellowish brown silty sand rich in organic materials mostly from the current vegetation; c.452 is a silty sand surface layer of mid grayish brown occupying the western half of the trench; and c.458, the sediment layer

exposed, is a light yellowish brown coarse sand deposit. Prior to backfilling, the depths of the trench are 66cm at the northwest corner, 70cm at the northeast corner, and 77cm at the southwest corner and 79cm at the southeast corner.

Of the three major sediment layer, c.452 has the most notable finds. Three contexts were recorded immediately within the first three 5cm spits; small animal bones [c.453] were recovered in the first and second spits; a Tridacna spp. shell [c.454]; and linear depressions appearing to be modern postholes or possible fencing [c.455] with very loose mid yellowish brown silty sand fillings. These small posthole features when cross-sectioned revealed a shallow cut — the colored fill might have been caused by root action. The fourth spit revealed a dense layer of shell [c.456] encompassing the entire trench. The fourth spit revealed a dense layer of shell [c.456] encompassing the entire trench. Fragments of bones, modified deer antler and pottery sherds were recovered in this context. At the southeastern quadrant, three coral chunks and long bone were exposed. These coral chunks were later found bordering a burial.

Assigned c.459, the burial was not completely exposed due to lack of time and partly because of its position; not literally extended, the body appears to be upright. The cranium, exposed at 67cm below LDP, was facing northeast while the body is predicted to be extending to the southwestern corner. The skull was fragmented and only the humerus and a few small bones were recorded. The recovery is set aside for the next season in order to fully recognize the nature of the burial. While markers were recorded, no visible cut of the grave was noticed. Found associated with the burial were shells, unidentifiable bone fragments and potsherds, these were all part of the fill [c.460] of the burial. To the northeast of c.459, possibly associated with the burial, was an inverted fragmented votive pot.

Kampo Santo Site

The area designated as Kampo Santo Site enclosed a former cemetery used until the early 20th century by people from Tuhian and nearby communities, even from islands across. It continued to be sparingly used until the mid-70s by communities of nearby villages. The area is bounded by woody trees at the south, by bamboo groves at the east and by the sea to the north and west. A quick survey of the area revealed four rectangular grave markers made of cement with average dimensions of 80cm by 40cm. The graves were from the early 20th century up to the early 1960s, based on what were incised on the markers. However, aside from the modern grave markers, there are also coral stones scattered at the surface either singly or in clusters. The aim of the excavation at the Kampo Santo Site was to

determine if there would be burials under the coral stone clusters as similarly observed at Locality 1. Three test trenches were made at areas densely covered with rocks: the first was about ten metres from the southern limit of the area; the second was about 6-8 metres south of the modern markers, which in turn are about 15-20 metres from the sea; the last is about five metres from the eastern edge of the area.

Excavation at the first two trenches terminated at about 1 to 1.25 metres depth from the surface, and exposed well-stratified natural layers without intermixing of sediments as would have been expected had there been digging in the area. Excavation of the third trench, however, revealed a straight cut oriented east-west and parallel to the general direction of the length of the cluster of coral stones at the surface. In plan view, the cut is about 50cm south of the northern edge of the coral stones but began at a level 40cm below the surface. The cluster of coral stones, however, is about 25cm thick from the surface or about two to three stacks of rocks. The components of the cut's fill, a mixture of yellowish brown gravelly sand and greyish brown silty sand, is similar to that exposed in a pit previously dug up by locals quarrying for sand. The pit is less than two metres south of the modern markers. The demarcation of this matrix with that of the overlying layer in the pit is sharp which, in retrospect, might also indicate the surface of a fill. Since this, and the feature observed at Trench 3, began at a level lower than the modern markers, which lay just at the surface, the greater antiquity of the cuts compared to the modern graves is proposed.

There were no human remains observed in these trenches. This may indicate a greater antiquity for these burials, which the acidity of the allowed ample time to completely dissolve the human remains. Alternatively, these markers were not marking burials. Our current information is not sufficient to know for certain.

Comiso Property Site

The Comiso Property Site in Barangay Matandang Sabang Kanluran, Catanauan, Quezon, was one of the first sites to be surveyed by the UP-ASP in early 2008, based upon a report from Mr. Deo Cuerdo, a heritage advocate and resident of Catanauan. The Comiso Property had been severely disturbed by sand quarrying. It was first test excavated during the 2010 season of the project (see Paz et al. 2010). Because of the promising results of that test excavation, it was decided that a full scale excavation be conducted at the site. Funding was provided by the UP Office of the Vice Chancellor for Research and Development.

The overall research problem of this project is to understand the nature of the archaeology of Matandang Sabang Kanluran. Though the ocular inspections and the test excavation

confirm that this is a jar burial site, it is still at a general level of description. The details and particularities of this ancient mortuary practice is as yet unclear, and, whether they are similar to or different from the other jar burial sites in the Bondoc Peninsula and other places in the Philippines is yet to be confirmed.

The objectives of this excavation are 1) To excavate and systematically record the archaeology within the Comiso Property; 2) To curate recovered archaeological materials according to the National Museum procedure; 3) To establish the stratigraphic relationships of archaeological assemblages within the Comiso site, and 4) To establish possible relationships between the Comiso Property Site and the Napa Property Site. Fieldwork was conducted from January 11 to 27, 2011. A courtesy call with Brgy. Matandang Sabang Kanluran Barangay Captain Salome Pastorpide was done prior to the start of actual excavations.

All the necessary steps in an archaeological excavation were accomplished. A datum point was established from which the entire site was mapped and a grid was laid out. A total of five trenches were opened across the site. These trenches were opened according to where concentrations of artifacts were observed, as well as in spots where locals recalled seeing archaeological materials that have been accidentally unearthed.

Excavation proceeded systematically using the context system. Documentation was done through the use of context sheets, illustrations, and photographs. Finds were labeled according to trench number and context number. These were later cleaned and accessioned according to the standard operating procedure of the National Museum. All trenches were backfilled by the end of the excavation. All artifacts and environmental samples were transported back to the laboratories of the Archaeological Studies Program for post-excavation work.

Preliminary Analysis

A total of 575 pieces of artefacts have been accessioned. Majority (556 pieces) are earthenware sherds, followed by Indo-Pacific beads (11 pieces), shells (6 pieces), a metal artefact and a piece of wood. Fragmented human remains from burial jars were also collected.

The absence of stoneware sherds, porcelain and other relatively younger materials indicate that this site is at least older than the tenth century CE, when the Philippines was beginning to have contacts with neighboring areas. This type of assemblage is also typical of the Philippine metal period, which is pegged at around 2500 to 1000 years ago. The presence of Indo-Pacific beads can possibly narrow this date further to around 2000 years ago. This is therefore the provisional date for this site at this time.

The landscape of the Comiso Property Site is comprised of older sand dunes overlain by O-horizon organic soil. The sterile layer is made up of a very compact sandstone layer, which has been reached in three out of the five excavated trenches. In these three trenches, the intervening layers possibly only reflect a single episode of occupation, namely the burial jar layer that was disturbed by earth moving activities. However, in Trench 4, a possible posthole was uncovered at a lower (therefore older) level than the jar burial layer. This feature and the potentially older phase it is associated with should be reinvestigated.

For the most part, the significant archaeology encountered at Comiso is these jar burials, and other associated features that were uncovered during the excavation. These features include random shell scatterings that may be termed a midden, and a deliberately placed pile of shells and decorated pottery found in Trench 4. The excavation has thus confirmed that not only is Comiso an archaeological site, but it is also a mortuary site where consumed shells accumulated, perhaps as they were eaten or prepared for some ritual purpose.

Survey

The survey work done this season was limited within the Napa property in Tuhian. Aside from a more comprehensive survey of the Camp Santo area, which led to the test excavation of the site, we only had one more area investigated outside the site's we were excavating. This area, labeled "Locality 4", lies behind the beach-front properties along Tuhian/ Buhanginan cove along the access road that runs behind these houses and lots. We confirmed oral reports that mentioned stone slabs exposed during maintenance work on the road by Barangay officials. Our initial survey noted what look like in situ stone markers, and that the area seems to extend further in-land. This site, which is also adjacent to a water way that runs across the road, may be a better preserve site of the Locality 1 type, if local informant recollection is correct that this area did not undergo mechanize cultivation during the period when the area was transformed into a peanut farm.

10. Discussion

Dating the Archaeology of Catanauan

After three seasons of study we continue to hold the view that the archaeology at Locality 1 and Comiso site has a time depth of approximately 3500 years at best. This is still based on the relative dating of artefact assemblages recovered from known stratigraphic locations at Napa site. The oldest date is based singularly on the red tinted pottery sherds found at the lowest level at Trench 1, which may be possibly of the red-slipped type, and the absence of

tradeware ceramics and other younger known forms of artefacts. These red-slipped pottery assemblages in the Philippines are conventionally associated to a time dept of four thousand years.

At Locality 1, the most significant cultural layer, and more secure age estimate for the site are the stratigraphic layers associated with the jar burials and the shell middens. These layers do not have any associated tradeware ceramics, meaning, they are not likely to be younger than 1000 years old; the oldest known tradeware ceramic assemblage in the Philippines is associated with the late Tang dynasty in China. The burial jars had in them Indo-Pacific beads, which may have been available in the Philippines as early as 2000 years ago, however, with these predominantly yellow beads were red/ruby red glass beads, clearly associated with Chinese bead making of around 1300-1200 years ago (Francis 2002:75), color plate 15). The features were also stratigraphically associated with metal implements and decorated pottery sherds from the general time-depth of 2000 to 500 years ago. The people who buried their dead in the complex of jar burials within boat shaped stone markers were therefore doing this from no earlier than 1300 years ago and not later than 1000 years ago.

The Nature of the Archaeology at Napa Site

Further expanding the discussion above, based on the results of this season's excavation, we can safely say that the archaeology found underneath the current landscape inside the Napa property at Tuhian is associated with pottery manufacturing and using people, and that there is no evidence yet for any archaeology that may be associated with an older non-pottery using culture. The implications of these results tell us that the archaeology at the Napa site cannot be older than 4000 year; a safe time estimation when pottery is known to be part of the material culture of early communities in the Philippine islands. More specifically, the archaeology at Napa site is predominantly associated with the practice of burying the dead in jars — both as a primary burial practice as well as a secondary burial practice. The small finds of pottery from what looks like a unique mid pinkish brown sand deposit [c.27] at Trench 1 may represent an older culture that possibly goes back to the early presence of pottery technology in the Philippines islands, and possibly an Austronesian speaking culture. However, three seasons of excavation have not improved the quality of evidence that could further support this inference. Nevertheless, the potential of finding archaeology associated with cultures older than the culture practicing burials in jars still exist.

Boat shaped burial markers

The elongated features with curving sides and pointed ends were intentional forms. It is harder to accept that these forms were randomly chosen or that they have no meaning. This

is especially so given the context of these forms as burial markers. If they do have meaning, what could be represented by these forms in the life of the community who practices this type of human burial? The most obvious answer is that these markers were representing boats. The site is next and facing the sea, and the time period tells us that maritime culture was unproblematically present.

There is also a strong correlation between boat symbolism and expression of a culture's belief system or cosmology in the region and in this time period. The best archaeological examples we have is the iconic Manunggal jar from Lipuun point, Palawan (see Fox 1970), the boat shaped stone markers of Batanes (see Dizon 1997), and the actual boats that were placed inside the cave — some recorded with skeletal remains in Kain Hitam (Painted Cave), within the Niah complex, Sarawak (see Szabo et al. 2008). In the ethnographic record, we hear of the importance of boats in the symbolism of ethnolinguistic groups from Luzon to Mindanao to Kalimantan in Borneo. In the absence therefore of any viable alternative view as to what these forms represented, we think that it is highly probable that these are representations of boats.

What exactly is the relationship of the individuals buried within a single boat marker? Are they from one clan? Are they clustered by social status? These are just a few questions that we are not yet in a position to answer, but will be able to do so in the near future. Needless to say that the clustering under one markers cuts across sex and age with representation of men and women present and a heavy representation of pre-adults.

On the Jar Burial Practice

The archaeology tells us that there were several startigraphic, thus temporarily different, archaeological assemblages at Locality 1. The argument still stands that they represent short time intervals and thus there is a continuity of culture at the site and the different archaeological assemblages that are separated startigraphically may represent years or a few decades rather than centuries. We can argue this because of the observed continuity of archaeological artefactual assemblages coupled with the inferred understanding that people went back to uncover the jars, took out the human remains in the jars, and when events dictated, a new body was placed in the old jar. The presence of jars, for example, with hardly any human remains surrounded by jars with human remains, and are with remains from on e individual and a few bones from other individuals suggest that jars were reused, and that perhaps bones were taken out and returned.

The burial practice also gives us insights on how the people viewed children. Perhaps what the neonate jar burials tell us is that for the people living at Catanauan more than a thousand years ago, their view of when one becomes human start at least by the time the

infant was a few months old. There is also the observed pattern at the partially excavated SM1 where the children's jars were placed at the very edge of the marker. What this pattern tells us still needs to be further studied.

Within the complex of stone markers, there are four types of burial covers observed : plain coral slabs placed on top of the jar, coral slabs with carved-out notches, coral slabs with an exact carved area to fit the jar's mouth, and piles of rock that served as jar covers. A unique feature so far excavated in the first season within SM2 was a small chamber built on top of an adult burial. It is still not clear what the correlation is between these features and the intended meaning for the people practicing the ritual of burying their dead at Tuhian.

On Shells and Slags

It is also worth pondering on the possible ritualistic significance of the shell layers across the site. We started by treating the shell deposits as refuse from domestic consumption. With the habitation not found near or on site, it is more likely that we are seeing the remains of ritual consumption of food on site connected with the rituals of processing the dead. We therefore have a richer image of the ritual acts connected to the stone marker.

The presence of metal slags still remains a mystery to us. With our new view on the shell deposits, we can hypothesize that it may also have something to do with the ritual acts done on site. However, there is still the possibility of finding industrial activity, such as metal smelting operation or glass bead production on site, but until we do fine better evidence — the pit in Trench 15 with an ashy like fill is the closest support feature — we cannot argue for the presence of metal smelting operation in Locality 1.

Possible Relationships Between Comiso and Napa Sites

The Comiso Property site is a jar burial site that dates roughly to the Philippine metal period (circa 2000 to 1000 years ago). This interpretation is no different from the interpretation we currently have for the neighboring site of the Napa property, though, unlike the Napa Site, no Chinese glass beads were recovered, indicating that the Comiso site might belong to an older time horizon. Nonetheless, the similarities between the function of the site, the artefacts and their geographical proximity strengthens the argument that these two sites must have some sort of relationship; perhaps they were inhabited by the same group of people, or at least, if there were different groups, of groups that had close affinities. There is still a possibility of finding stone boat shaped markings around Comiso site. The excavations are still very much limited in area.

There is a strong possibility that within the time period of 1200 to 1500 years ago the various coves along the Bondoc peninsula facing Marinduque were inhabited by a homogenous culture. Initial surveys south of Catanauan, within the municipality of Mulanay seem to indicate the existence of coastal sites.

The Archaeological Phasing of Catanauan

The following is our current phasing of the archaeology of Tuhian chiefly based on the results of the Napa site excavations.

Phase 1 – Presence of humans in the landscape associated with the well fired reddish pottery sherds found in Trench 1, Locality 1. It is potentially much older than the culture associated with Phase 2, optimistically associated with the early pottery cultures in the Philippines circa 4000 years ago.

Phase 2 – Habitation/ settlement of people practicing the burying of the dead in jars under stone markers. At Locality 1 the culture cluster these jars under consolidated markers shaped to look like boats. This phase is also associated with metal implements, glass and shell beads, glass bracelets, decorated earthenware pottery, metal slags and a few postholes and hearths. The scatter of artefacts and presence of hearths seem to be associated with ritual activity connected with the markers at Locality 1. The time period is from 1200 to 1000 years ago. Taking Comiso into consideration, we may argue that Catanauan archaeology for this phase may start at 2000 years ago.

Phase 3 - A later practice of jar burial, perhaps along the time period of 1000 years ago or younger, but still associated with the same people staying in the same landscape at an early time, e.g., later jar burials that look like they were placed above the markers at Trench 4 and 6, SM1, and SM3.

Phase 4 - A later practice of burying their dead in the same landscape. This time they were burying the dead extended, but may have still be using extended burials cutting through SM3, at the side of SM1, at Trench 15 and at Trench 16. Perhaps a change in cosmology or a change in population, but still had commonalities with the earlier population.

Phase 5 – A period of cultural hiatus at locality 1. This is represented by the complete absence of cultural materials imbedded in the sand associated with the period from 900 years ago to 100 years ago. Activity at Campo Santo area perhaps has started.

Phase 6 - 20th century human activity including signs of settlement and mechanized cultivation. Contemporary settlement of Tuhian grows at Buhanginan and later moves to closer to the highway, reducing Buhanginan to a sitio.

Understanding the Landscape

The general coast of Catanauan seems to have been occupied by humans within a zone of beach and estuarine land. We still have yet to demonstrate that the higher landscapes contained contemporary or older archaeology, which does make sense if we look at the Napa site finds as a meaningful space for its location near the sea and the estuarine area containing a water source.

The absence of a clear habitation area associated with the burial ground is still puzzling. The habitation may perhaps be further up the hill in Tuhian, but no signs of such a site have been located to date in the surveys done by the project. An alternative hypothesis is that the burial ground was attached to a community or communities located on the shallow shores of Tuhian cove. If this is the case, then we are looking at a Badjao-like settlement with a clear cosmological orientation towards the sea, thus the emphasis on boat motif for the burial markers. The best way to prove this is to establish that the shallow cove of Tuhian existed as such more than a thousand years ago and not just in the last few centuries. We can do this by seriously studying the formation of the landscape and place a time-depth to the current shallow cove of Tuhian.

It is still very interesting to mention after the third season that for the current population, the water source by the swampy estuarine east of Locality 1 is associated to many stories of the supernatural kind. It seems to have power that is respected by the community. It is still too early to connect these current beliefs with that of people who buried their dead in jars over a thousand years ago. Be that as it may, this area of the landscape needs further study from a landscape history standpoint.

Heritage work

Since the first season of the project, we have practiced on-site archaeological heritage work. Our public archaeology effort took the form of information dissemination through posters explaining what the discipline of archaeology is and what the CAHP is all about. We have also been consistent in giving explaining to walk-in visitors, mostly Catanauan residents, what we have been learning and answering as best as we could queries coming from the public on any given excavation day.

On the second season of our project we initiated an exhibit of our results and on the Bondoc peninsula archaeology. This exhibit was placed at the Napa house in Buhanginan, but was intentionally movable. The barangay officials of Tuhian occasionally borrowed it and placed it at the Barangay hall on special occasions. This season we improved on the exhibit and made a section of the ground floor of the Napa house as an exhibit hall. We have placed a

replica of a child jar burial as a center piece of the exhibit. More importantly we started, in small measure, training possible docents for the exhibit coming from the local community.

Our nightly lectures for the team and film showing had in mind the people living nearby and our large local crew who make it a point to watch and listen. We were therefore more conscious in the third season when it came to the content of the movies we showed and as much as possible have Filipino crew members explain to the local crew salient points of the lectures that were delivered in English due to the high number of Australian students in our team.

11. Summary and Recommendations

Our third season of excavation managed to achieve the objectives set: it further confirmed that the Napa site is a significant archaeological site and still holds great potentials. We have expanded the scope of the excavation at Locality 1. In the process, we learned that SM3 is relatively intact, that there are more jar burials within SM1, and that there were later day extended burials on site. The excavation at Comiso site continued and the excavation of Campo Santo was initiated during the season. Our initial understanding of the antiquity of human occupation of Catanauan stands with minor modifications. Also, the project continues to be an effective venue for training Filipino and Australian students in the discipline of archaeology while practicing community based heritage work in the Barangay of Tuhian.

The excavation has given us new details as to the workings and composition of a jar burial site in the Philippines, which has implications as to how we see jar burial cultures in the archipelago in general. The need to know more about the human past in the Philippines beyond the 15th century CE is vital if we are to understand with confidence why current Philippine societies and cultures behave the way they do.

For the coming season, the CAHP will continue its basic research at Tuhian. The detailed recording and recovery of SM1 and SM3 at Locality 1 will continue, as well as the recovery of the extended burials in Trench 13 and Trench 16. We shall continue to search for good evidence for the corresponding settlement to the ritual space in Locality 1. We plan to excavate further up the hill to the north of Trench 16 and behind the Napa house. Locality 4 shall be test excavated to see the condition of the archaeology in the area. If we see a Locality 1-type site in the area, it shall be fully excavated. We also plan to continue our heritage education work towards an eventual reconstruction of Locality 1 as an educational/tourist destination.

It is still our hope that we could investigate more sites in the municipality, which can then lead to deeper knowledge of our past. We believe this will have a direct positive effect on the way people living in Catanauan can appreciate their history. It will in turn, improve the base-knowledge of Catanauan history and lead to better heritage management and education in the region. We may perhaps be providing a best-practice model that may serve as a template for others to follow.

12. Team Members

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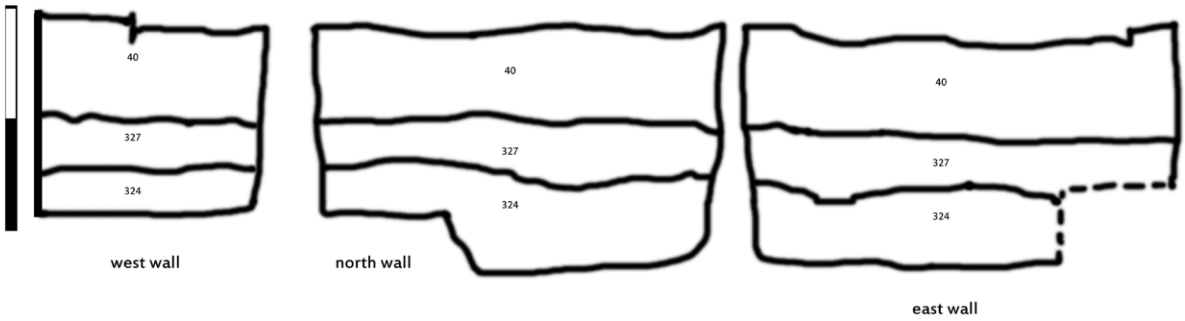
13. Figures

Fig. 6



Context	Description
30	Mottled sandy silt with few large coral rocks and pottery sherds
40	Mid yellowish brown fine sandy silt; few
12[illegible]	SM3 /T11 / sherds vnish yellow sand with
	no artefact inclusions; same as c.515
321	Tridacna shell arranged with various shells
	and pottery sherds in mid yellowish
	brown fine sandy silt at N7E21
322	**Remains of fragmentary in situ jar burial at N7E21**
323	**Termite mound, surrounded by context 40 across the whole trench**
324	**Light yellowish grey silty sand with high shell concentration**
325	**Burial jar**
325a	**Cut of burial jar c.325**
326	**Mid yellowish grey silty sand**
327	**Light greyish brown silty sand with clusters of pottery sherds and shells including a disturbed fragment of jar burial**
332	**Burial jar**
341	**Stone feature covering burial jars**
501	**Back filled shell concentration**
502	**Surface of SM3, the same as c.51**
503	**Thin layer of mid greyish brown sandy silt; similar to c.327**
504	**Jar burial in N6/7 E12 associated with tridacna shell**
505	**Concentration of Jar burial fragments in**
	N6E21, on stone marker
506	**Concentration of Jar burial fragments in N6E21 in sediment**
507	**Concentration of Jar burial fragments, top of jar c. 510**
508	**Concentration of Jar burial fragments in**
	N6E21, on top of stone marker
509	**Shell concentration with pottery and animal remains. same as c.31**
510	**Jar burial in N6E21**
511	**Jar burial in N6E21**
512	**Jar burial in N6E21**
513	**Jar burial crushed in N7E21**
514	**Jar burial in N6E21**
515	**Mid yellowish grey silty sand layer underneath stone marker; jars cut through this layer; same as c.126**
516	**Jar burial in N6/7 E12**
517	**Possible jar burial in N6E21**

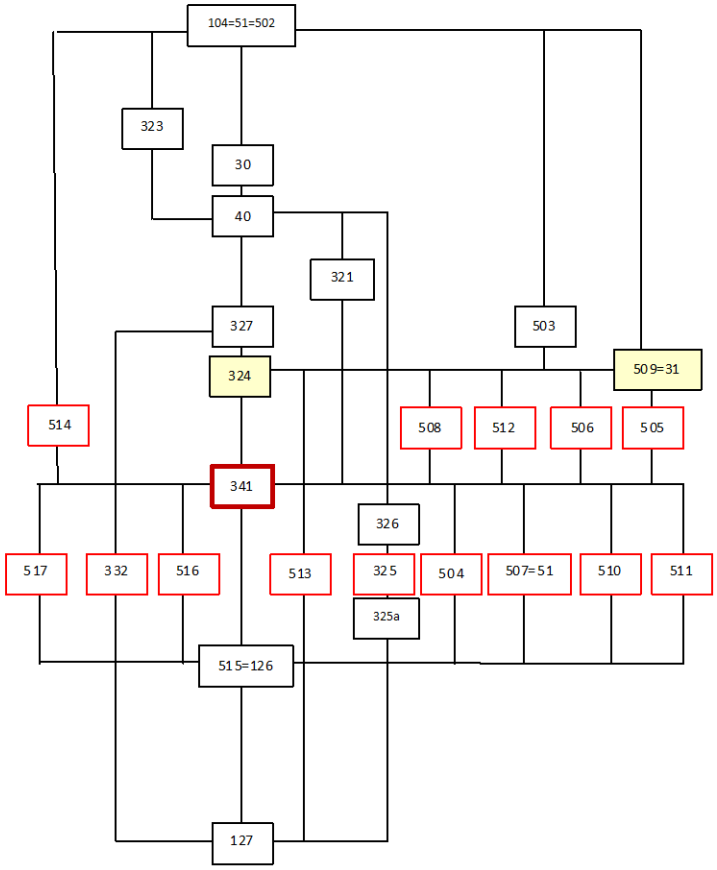
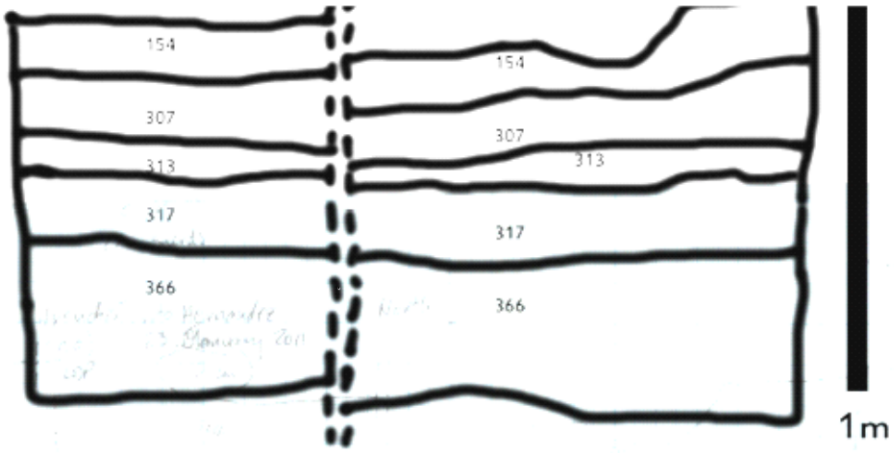


Figure 7. Trench 11 (SM3) Profiles



Context	Description
307	Mid greyish brown silty sand with shell concentration similar to 153
154	Surface
300	Fewer 20th century material and more fragments of coral rocks
313	Mid yellowish brown sandy silt with some shell mottling
317	Compact but looser than c.313 with more whole shells clustered new western portion of trench with many pottery sherds and animal bones
332	Jar burial in N6E21
338	Light yellowish brown sand layer slopes north south towards sea
339	Pit feature Mid brownish grey silty sand in the SE quadrant. Starts at the shell layer of c. 317 and cuts through c.338
340	Cut of pit with fill c. 339
366	Course light yellowish brown silty sand, with few shells and pottery sherds
368	Extended burial within c.366
369	Cut for burial c.368
370	Fill of burial c.368
371	Mottling sediment, ligh yellowish grey, same as c.370, found at south of c.368,
372	Feature, mid yellowish grey silty sand at north of skeleton c.368 (at right arm). Rectanglarish and very thin lens
374	Feature discoloraton of sediment, mid greyish yellow, by the left arm of c.368, around 22 cm wide

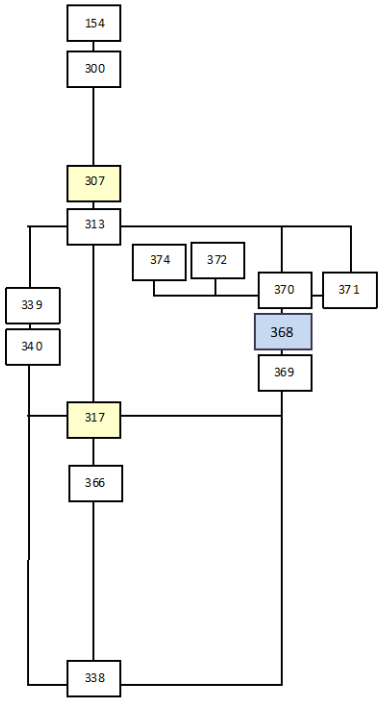
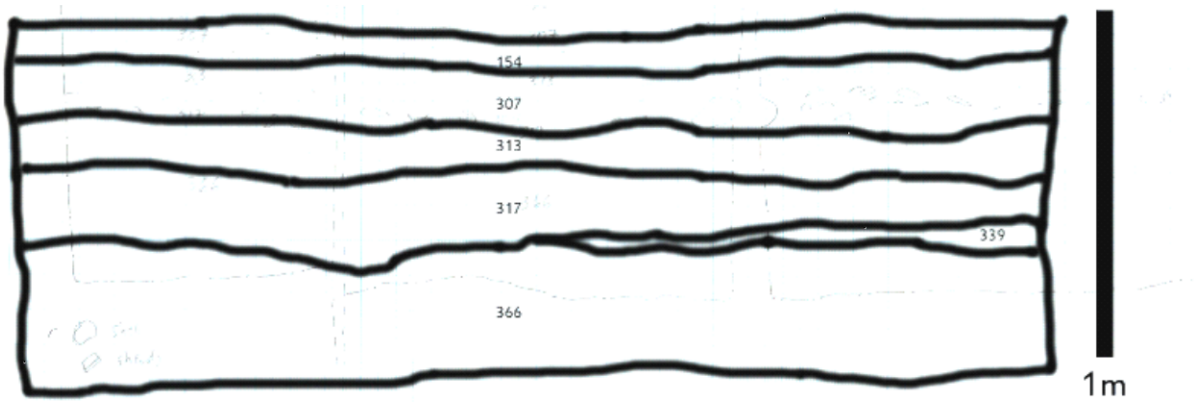


Figure 8. North Wall of Trench 15



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372	Feature, mid yellowish grey silty sand at north of skeleton c.368 (at right arm). Rectanglarish and very thin lens
374	Feature discoloraton of sediment, mid greyish yellow, by the left arm of c.368, around 22 cm wide

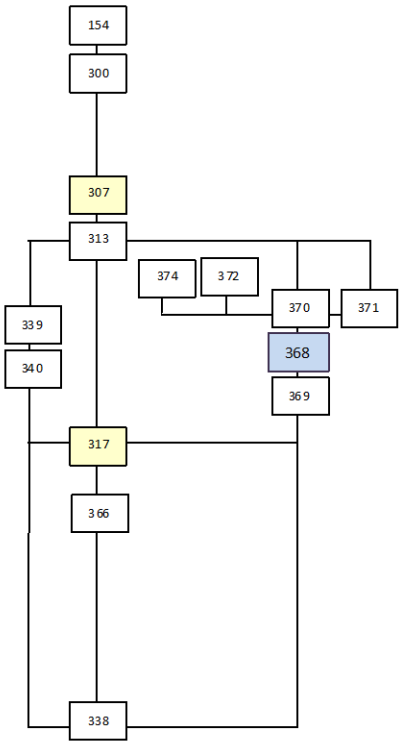
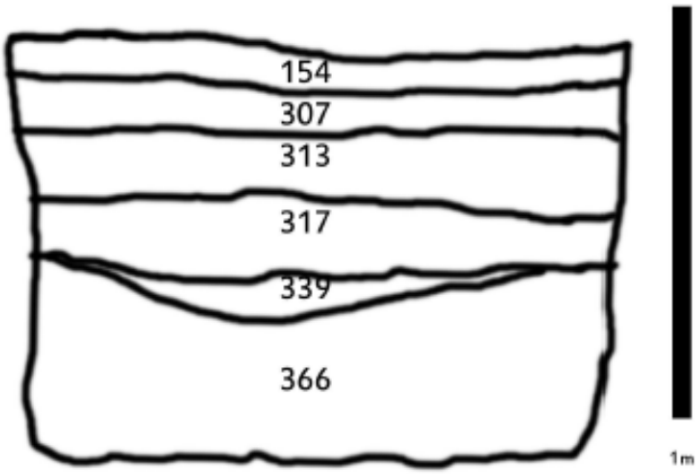


Figure 9. East Wall of Trench 15



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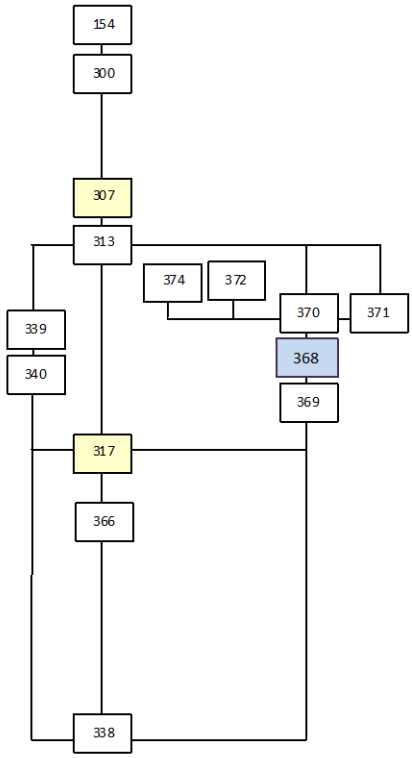
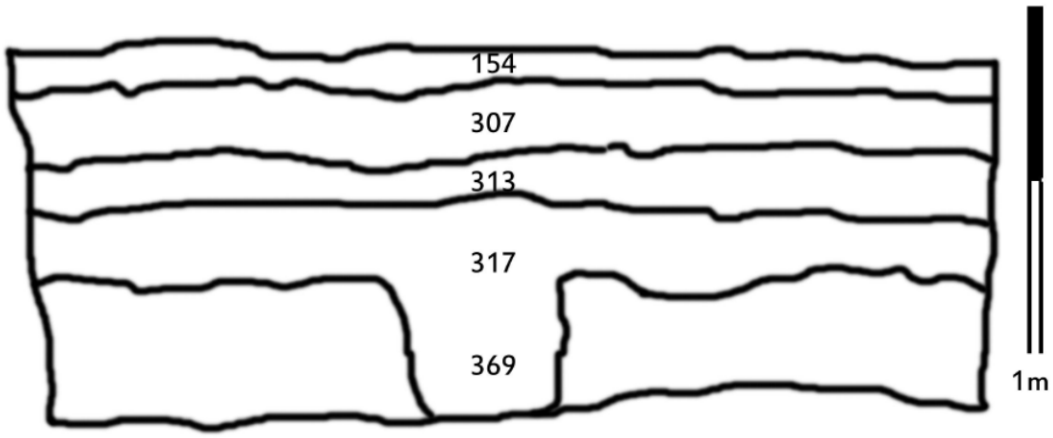


Figure 10. South Wall of Trench 15



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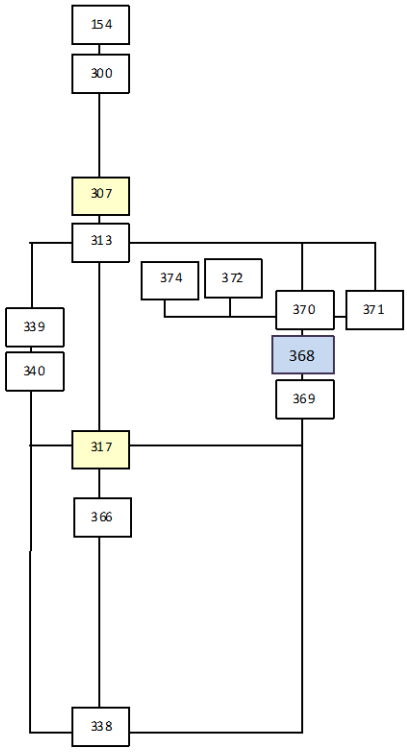
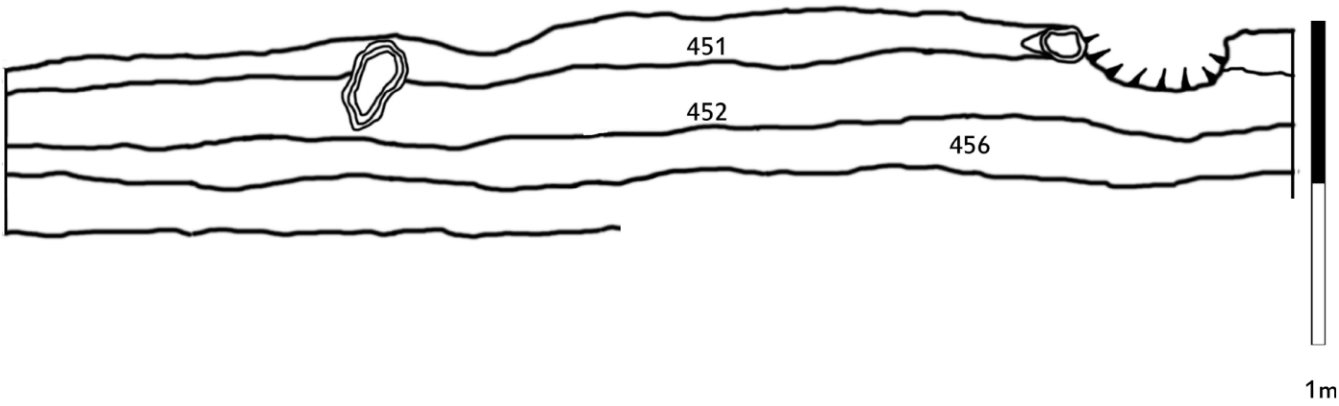


Figure 11. West Wall of Trench 15



Context	Description
451	Surface of dark yellowish brown sandy silt with charcoal mottling
452	Mid greyish brown mottled medium sandy silt; same as c.307 at Trench 15
453	Feature of articulated bones of mammal in NE corner
454	Tridacna shell with a concentration of other shells and
455	Possible post holes
456	Shell concentration layer with many pottery sherds and
457	Feature of jar cover/inverted bowl with a few animal bones
458	Light yellowish brown coarse sand

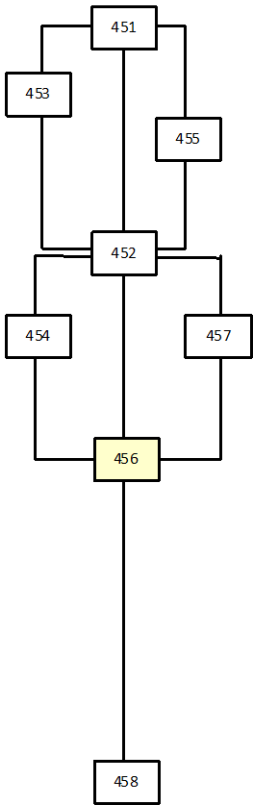


Figure 12. East Wall Trench 16

14. Plates

Napa House served as the base of the project in Tuhian; Top left, view from the front; Top right, view looking west; Right, cottage hut in front of Napa House served as eating and rest area for the team.

Below: Two view of Locality 1 at the beginning of the season: Top, Looking eastward; Bottom, looking westward. Locality 1 is just over a hundred metres to the east of the Napa House.

Plate 1. Base area of the project a Tuhian

Reestablishing the grid

Re-excavating the backfill; surface exposed from last season

Establishing trench boundaries

Excavation of multiple trenches at Locality 1, looking southeast

Excavation by toweling

Recording/plotting every rock in SM1 and SM3

End of day summary of excavation, open to the public

Artefacts hanging to dry after washing

Artefacts accessioned following National Museum system

Nightly lectures and discussion

Plate 2. Methods

From left: c. 357 was excavated n the southern end of SM1; c. 333 is a jar burial in the north westernmost corner of N6E17; c. 334 a neonate iar burial in the westernmost extent of N6E16.

Above: another neonate jar burial [c.320] is cling-wrapped before eventual removal. This was found in close proximity to two other neonate jar burials.

Center: Aerial photograph showing the entirety of the coral stone markers in SM1. This trench occupies the former trenches 6, 9 and western section of Trench 13.

c.368 was found in the northwestern end of SM1.

From Left: c.365 a jar burial in the southern end of SM1; c.367 was found in N6E18 under the marker.

SM1 viewed from the northern end of the trench.

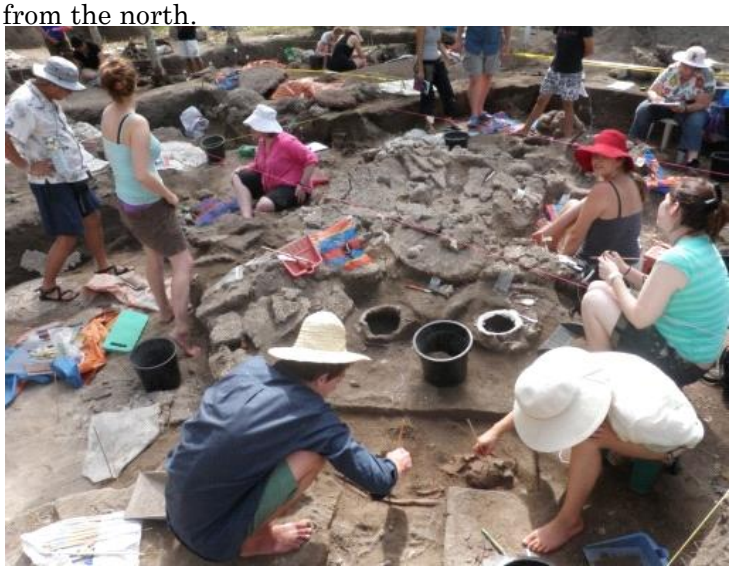
Plate 3. Images from Stone Marker 1 feature excavation

Neonate jar burial [c.333]

Neonate jar burial [c.334]

Plotting the coral slabs

Left: an extended burial [c.368] in the southern end of SM1 has an appearance of tight wrapping when buried as evidenced by upright clavicle and compressed body. The arms are crossed in the pelvic region. Below: SM 1 seen from the north.



The marker viewed from the south. The slabs are disorientated probably due to mechanized plowings in the early 90s.

A fragmented jar cover [c.334] is similar to c.314 earlier excavated in Trench 13.

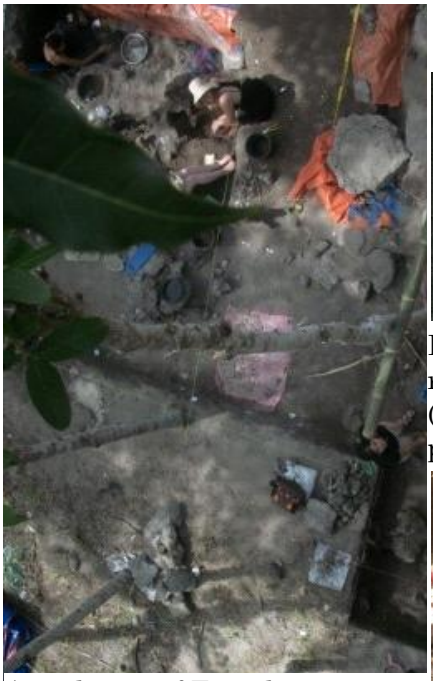
Plate 4. Images from Stone Marker 1 feature excavation

c.301 emptied of its content is being wrapped with plaster to avoid breakage during recovery.

Excavation of c.301 and c.335 jar burials found next to each other.

Extended burial (c.403] found in Trench 12 cluster of SM2 (above & below).

View from the top showing the entire Trench 12 portion of SM 2, with the groupings of the coral stone markers.



Aerial view of Trench 12 (uppermost part) showing some part of adjoining SM3 feature; excavation of jar c.301 and extended burial c.403 on going.

Below: Recording and recovery of artifacts in c. 335 (far left) and cluster of possible jar burial (right)

Below: Grooved coral lid of jar burial c.301

To the left is c. 301, top is 335, and right is the extended burial, c. 403. (shown below)

Fragmented pot sherds of c.335 under broken coral slabs.

Plate 5. Images from the excavation of Stone Marker 2 feature

Skull from c.504 attached at the bottom of the jar

Stone markers broken apart with possible burial (N17E21)

Stone markers in Trench 17 at N17E21 grid with burial jar

Context 504 (right) and the newly exposed c.513 (far right); c.504 contains a head with its mandible still attached; c.513 was not excavated due to lack of time and was reserved for next season's excavation.

Left: Extending the trench (connecting T11 and T17 and their extensions) upon exposing new jar burials and coral markers, hence Stone Marker 3; below: context 332.

Plate 6. Images from the excavation of Stone Marker 3 feature

Context 339 shows clearly in the south wall upon revealing c.366.

Context 372 and c.374 may possibly be rectangular postholes

South wall profile showing c.339 above c. 366.

Discolorations in the sediment represents fill of burial c.368.

Context 374 was a prominent discoloration near the left arm of c. 368. Seen below after sectioning; it may possibly be a small posthole for a burial structure.

Context 368 is an extended burial found in c.366, a culturally sterile layer of sand. Inset: the upper skeleton of burial c.368

Plate 7. Trench 15 excavation images

Exposing shell layer [c.456] all across the square

An upturned possibly votive pot [c.457] for burial c. 459.

Context 457 shown here associated with brain coral

Context 452, as sediment layer beneath the shell layer c. 458

Context 458 viewed from the north indicating the position of burial c. 459 in the left corner

Right: thick concentration of shell of mostly marine types. Far right: closer view Tridacna shell & brain coral [c.454] above the upturned pot [c.457]

A likely primary extended burial [c 459] uncovered in the westernmost section of the trench. the body appears to be crouched, extending towards the southwestern boundary of the trench.

Plate 8. Trench 16 excavation images

Extending the mapped area of the site

Recording features in profile

Exposing natural contours of a feature

Reaching the top of the water table at Trench 5

Exposing shell rich layer in Trench 1

Salvaging of the artifacts hit by sand quarry directly to the north of Trench 1

Creating digital imagery record of the site

Trench 9. Excavation of Comiso site

Clearing and cleaning of the site in preparation for excavation; all cement grave markers and stone markers plotted.

Trench 3 west profile

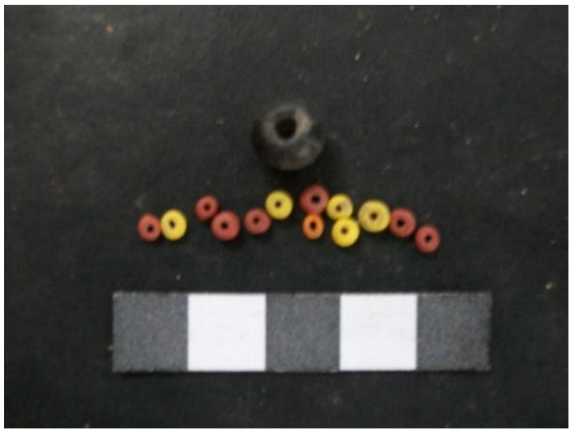
Trench 1 south profile

Site after clearing and survey

Trench 1 viewed from the west

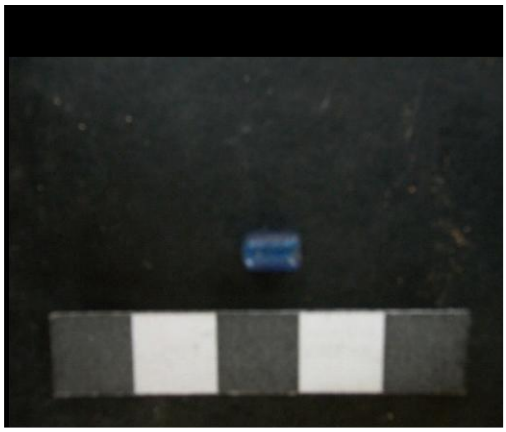
Trench 10. Campo santo site excavation

Carved bone dagger handles: IV-2008-Q5 3502, Trench 6, c.112 (Left); IV-2008-Q5 1025, SM 1, c.357 (Right). At least three handles of this type have been found in the site as inclusions in the jar burials.



Beads IV-2008-Q5 8662, Trench 12 c.43

Beads IV-2008-Q5 1026, Trench 6, c.504



Glass bead IV-2008-Q5 8619, Trench 12

IV-2008-Q5 10289, SM 1, c.357

Plate 11. Selected bones and beads artefacts

IV-2008-Q5 8252, trench 15, c 317

IV-2008-Q5 9947, trench 15, c. 339

IV-2008-Q5 8940 trench SM 1, c. 355

IV-2008-Q5 9942, trench 15, c. 339

IV-2008-Q5-8554, trench 11, c. 332

IV-2008-Q5 8095, trench 15, c. 324

IV-2008-Q5 7906, trench 15, c. 154

Plate 12. Selected incised decorated earthenware pottery rim sherds (all scales are in cms)

Aplique and carinated body sherd:
IV-2008-Q5 9943, Trench 17, c.503

Impressed body sherd:
IV-2008-Q5 8520, Trench 11, c.327

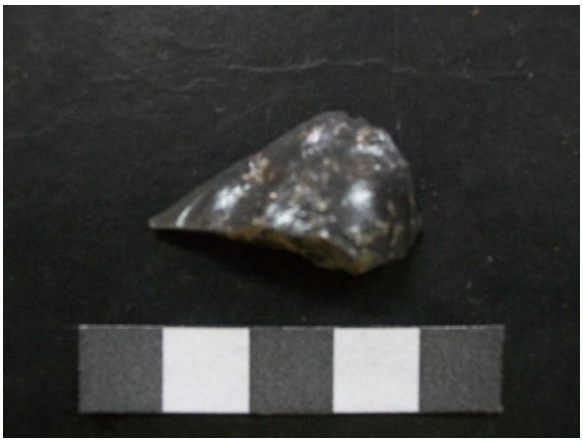
Incised decorated body sherd:
IV-2008-Q5-8071, SM1, c.355

Incised decorated body sherd:
IV-2008-Q5-8072, Trench 15, c.317

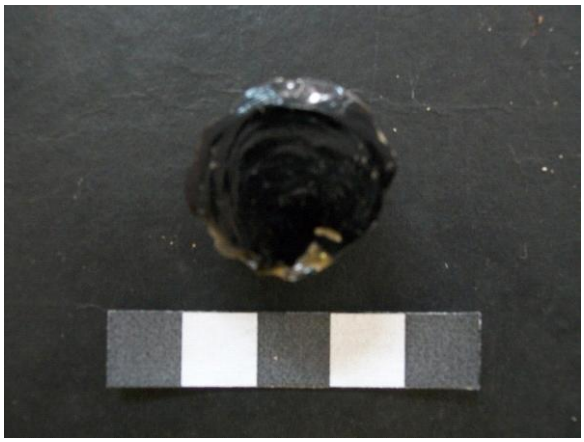
Incised decorated rim sherd:
IV-2008-Q5-7902, Trench 11, 1.4 m DP

Incised decorated rim sherd:
IV-2008-Q5-7901, Trench 11, 1.4 m DP

Plate 13. Selected incised earthenware pottery



Obsidian flake
IV-2008-Q5-8629, Trench 11, c.321



Obsidian flake
IV-2008-Q5-8633, SM1, c.104

Obsidian pebble
IV-2008-Q5-10286, Trench 13, c.331

Shell disk with perforation
IV-2008-Q5-10210, Trench 13, c.331

Worked shell with perforation
IV-2008-Q5-8636, Trench 11, c.327

Plate 14. Selected obsidian and shell artefacts

Visiting UP Anthropology class caught in one of the common afternoon downpours

Property owner Mr. Ermilando Napa (center) visiting the Locality 1 excavation

Bgy. captain Leopoldo Quindoza (3rd from left) with Barangay Tuhian councilors

Mr. Napa touring the site with Dr. Oxenham and Dr. Dizon

Tourist from Manila given a tour (left); Dr. Oxenham, Dr. Paz and Dr. Dizon of the National Museum discussing details of excavation (right); Lecture for the benefit of Mulanay officials (bottom left); Tuhian folks listen to daily rounds (center); Children playing as archaeologists

Plate 15. Community interaction and impact

The future of Catanauan archaeology: kids made their own trenches to the north of Locality 1. These are the children of the crew members who often visit the site and offer to help. This is what happened when rejected-early signs of heritage consciousness building?

The barangay fiesta of Tuhian where the team was invited to participate in the local traditional Filipino games and judge a local dance contest. The annual festival coincides with the excavation season; interaction becomes natural.

Plate 16. Some recent examples of community interaction

15. Appendices

Appendix A: Authorization to excavate

Republic of the Philippines
Office of the President

NATIONAL MUSEUM

P. Burgos Street, Manila 1000

CPD-SA-2010-06
December 3, 2010

000003 53

SPECIAL AUTHORIZATION FOR LAND ARCHAEOLOGICAL EXPLORATION AND/OR EXCAVATION

This authorizes **Dr. Victor Paz,** University of the Philippines, Archaeological Studies Program Director and a National Museum Research Associate to conduct archaeological excavations in the town of Catanauan, Botok Peninsula, Quezon Province from January to February, 2010. This undertaking is in accordance with R.A. 4846, as amended by P.D. 374 "*Cultural Properties Preservation and Protection Act*" and by R.A. 8492 "*An Act Establishing a National Museum, providing for its permanent home and for other purposes*'.

This authorization complies with the provisions of Section 12, of Presidential Decree 374 wherein it clearly states "*It shall be unlawful to explore, excavate, or make diggings on archaeological or historical sites for the purpose of obtaining materials of cultural or historical value without the prior written authority from the Director of the National Museum. No excavation or diggings shall be permitted without the supervision of an archaeologist certified as such by the Director of the National Museum, or of such other person who in the opinion of the Director is competent to supervise the work, and who shall, upon completion of the project, deposit with the Museum a catalogue of all the materials found therein, and a description of the archaeological context in accordance with accepted archaeological practices*".

Authority granted at the National Museum, Manila, Philippines on December 3, 2010.

Authorization Granted:

JEREMY BARNS, CESO III
Director IV

HEAD OFFICE:
Tel. Nos. : 527-1215
527-1242
527-1209
Fax No. : 527-0306
e-mail : nmuseum@i-next.net

Appendix B

Inventory of human bones by context

The list contains recovered human elements mostly from jar burials and excludes the 2011 extended burials uncovered. Elements are from adults unless otherwise noted.

Context 354

Humeral shaft fragment, about ¼ of length
Humeral shaft fragment, left, distal 3/4, without epiphysis
Humeral shaft fragment, right, about 1/3 of length, distal portion, without epiphysis
Tibial shaft fragment, distal half, juvenile
Parietal fragment
Radial shaft fragment, about 1/3 of length
Temporal fragment, left, with mandibular fossa
Large diameter long bone fragment
Temporal bone fragment, petrous portion
Frontal bone fragment, with the supraorbital margin of the right orbit, with the fronto-maxillary suture
Rib shaft fragment, about 1/5 to 1/6 of the length
Maxillary fragment, left, with the fronto-maxillary suture and infraorbital foramen
Mandibular fragment
Tibial fragment, with only ½ of the diameter retained
Tibial shaft fragment, left, middle ½
Tibial shaft fragment, about ½ of the length
Ulnar shaft fragment, distal ½
7 cranial fragments, includes 1 parietal, 1 frontal rib shaft fragment
Large-diameter long bone fragment, only 1/3 of diameter retained, tibia or femur
Femoral shaft fragment, only 1/3 diameter retained, close to proximal end
Rib fragment, with tubercle
Upper central incisor, right
Lower molar
Deciduous canine
Deciduous second molar
Numerous small unidentified fragments
3 probable ulnar shaft fragments, 2 with fresh break
Hand phalange shaft
Probable mandibular fragment
6 large-diameter long bone fragments, 1/5 to 1/3 of diameter retained
Metal artefact attached to a wood fragment, wood fragment with polished side
Non-human phalange
Non-human vertebral arch, with spinous process

Context 357

Clavicular shaft, left, without ends
Humeral shaft fragment, left, 2/3 proximal portion, but without the head

Fibular shaft fragment, ¼ of length
Parietal fragment
MC5, right, without the head
MC5, left
MC shaft, without the base
MC shaft, ½ of the length
4 proximal hand phalanges, all without bases
1 middle hand phalange, whole
2 distal hand phalanges, whole
2 phalanges, either proximal or middle, without bases
MC4, without the head
MT1 shaft, left, without the head and base
MT5, right, without the head
3 MT shafts, without heads and bases
2 proximal foot phalanges, whole
Lumbar vertebral arc h
Cranial fragments
Scaphoid, right
Lateral cuneiform, unsided
1 probable humeral fragment
Humeral shaft, right, ½ distal portion, without the end, juvenile
Temporal fragment, right, with the zygomatic arch, juvenile
Carpal fragment
Numerous unidentified fragments
Lower central incisor, left
11 long bone fragments
Thin cranial vault fragments
Middle cuneiform fragment
Hamate, right
Probable juvenile femoral shaft fragment
Atlas fragment, with superior and inferior articular facets, juvenile
Vertebral arch fragment
Cervid premolar
Upper central incisor, left
Upper canine, left
Upper lateral incisor, left
1 additional anterior tooth
1 lower third molar
Upper third molar, left, permanent, ½ crown formed
2 lower molars
2 lower permanent molars, ½ crown formed

Context 331
Fibular shaft fragment, right, middle ¾
Fibular shaft fragment, left, middle ½
Ulna, left, proximal 5/6

Iliac fragments, with GSN
3 vertebral arch fragments
Lumbar arch fragment
Femoral fragment, distal articulating surface
3 rib shaft fragments, 2-4 cm long
Medium-diameter long bone fragment, shaft, clavicle or ulna
Vertebral arch fragment, probably lumbar
2 MC shaft fragments, without bases and heads
1 probable MT shaft fragment, without base and head
1 proximal hand phalange, without base
2 intermediate hand phalanges, without bases
2 distal hand phalanges, whole
Radius, left, proximal 5/6
Humeral shaft fragment, left, distal half, with medial epicondyle
Iliac fragment, left, with GSN
Clavicular fragment, left, lateral half, but without the lateral end
MT1 fragment, left, without base
MT fragment, left, without head, possibly MT2 or MT3
Zygomatic bone, left
Zygomatic bone, right
Proximal foot phalange, right
Tibial fragment, superior articulating surface
4 rib shaft fragments, each about 3 cm long
Rib shaft fragment, left, with tubercle, about 3 cm long
Rib shaft fragment, left, about 3 cm long
Temporal bone fragment, right, with mastoid process
Navicular fragment
Navicular fragment
Mandibular fragment, with right condyle
Facial bone fragment
Atlas, whole, but with fresh breaks
Patellar fragment
Vertebral arch fragment
Fibular fragment, left, 1/6 distal end
Scapular fragment, lateral border
Scapular fragment, spine
Iliac fragment
5 cranial vault fragments
5 rib shaft fragments, each about 2-6 cm long
Shaft fragments of 4 MT, middle third
1 proximal foot phalange, without the base
1 MC shaft fragment
2 proximal hand phalanges, without bases
4 intermediate hand phalanges, one without base
1 distal hand phalange
Hamate, left
Hamate, right, hook with fresh breakage

Scaphoid, left
Distal foot phalange
Upper central incisor, right
Upper lateral incisor, right
Upper second molar, right
Upper third molar, right
Numerous unidentified fragments

Context 361

Maxillary fragment, left, with nasal border, with teeth - M1, M2, M3
Canine, right, upper
PM3, right, upper
PM4, right, upper
M1, right, upper
M2, right, upper
M3, right, upper
Canine, left, upper
PM3, left, upper
PM4, left, upper
Temporal fragment, left, with mastoid process
Temporal fragment, right, with mastoid process
Occipital fragment
Conjoining parietal fragments
Molar, right
Molar, left
Frontal fragment, with the supraorbital margin of the left orbit
Frontal fragment, with the frontal crest

Context 504

21 rib shaft fragments, juvenile, each about 1.5-4 cm in length, four with fresh break
Cranium, juvenile, relatively complete
Mandible, juvenile
Molar, juvenile, right
Femoral shaft fragment, juvenile, 3/5 of the length, without ends, fresh break on distal end
Tibial shaft fragment, juvenile, 3/5 of the length, without ends
4 radial shaft fragments, non-conjoining, juvenile, each about 2-4 cm in length, prob. representing two elements
Arch fragments of 2 vertebrae, juvenile
Long bone shaft fragments
7 isolated anterior teeth, deciduous
2 isolated m1, deciduous, roots complete
1 isolated m2, deciduous, roots complete
Permanent molar crown, upper, ¾ complete

Context 320
Temporal fragment, left, petrous portion
Temporal fragment, right, petrous portion
Non-human rib fragment, large mammal
Few unidentified fragments, some are non-human

Context 335

Humeral shaft fragment, right, distal half, without the lateral epicondyle
12 large cranial fragments, some with fresh breaks, includes parietal and frontal fragments
5 proximal hand phalanges, four with missing bases
3 intermediate hand phalanges
2 intermediate hand phalanges, distal halves only
3 distal hand phalanges
1 MC shaft
1 MC5, right, whole
1 MC, without head
Scaphoid, left
Capitate, left
Lunate, left
5 rib shaft fragments, each about 1.5-3 cm long
Calcaneus fragment, right, superior articular surface
Medial cuneiform, right
Navicular, right
Middle cuneiform, left
Middle cuneiform, right
3 MT shafts
MT5, right, without head
MT2 or MT3, right, without head
2 proximal foot phalanges, missing bases
1 first proximal foot phalange
2 intermediate foot phalanges
2 distal foot phalanges
MT fragment, head
Humeral shaft fragment, middle 2/5, with fresh break
MT1, shaft only
Tarsal fragment
Atlas fragment, left mass
Vertebral fragment
Tibial shaft fragment, middle 1/6
Radial shaft fragment, middle ½
Tibial shaft fragment, middle 1/6, anterior section only
Lliac fragment
8 large-diameter long bone fragments, most are probably femur
1 probable clavicular fragment
Other long bone fragments, not counted
Other unidentified fragments, 5 with articulating surfaces

2 molars, upper
1 canine, upper
2 molars, lower
1 non-human tooth
4 MT shafts, juvenile

Context 362 (very fragmentary)
6 cranial fragments, each about 2x2 cm2 to 3x5 cm2 in size, includes frontal bone fragment
At least 6 long bone fragments, each about 2-4 cm long, incomplete diameters
2 middle hand phalanges, one without the base
3 distal hand phalanges, one without the base
Central incisor, left, upper
Central incisor, right, upper
Premolar, upper
Lateral incisor, left, upper
Lateral incisor, right, upper
Cranial base fragment
2 non-human vertebral fragments, spinous processes, small animal
5 non-human vertebral bodies, small animal
Numerous unidentified fragments, many are very small <2cm, two with
Articulating surfaces probably representing a femoral or humeral head

Context 319
Vertebral arch fragment
C2 fragment, dens
Cranial base fragment
Cranial vault fragment
Lateral incisor, lower, root broken off
4 long bone fragments, each about 1.5-3 cm long, diameters not complete
Probable rib fragment
Non-human vertebral body, small animal
Unidentified non-human bone fragment
Some unidentified fragments

Context 365
Non-human molar
Rib fragment, probably human, 2 cm long, with fresh break on one end

Context 457
2 long bone fragments, 1.5-2 cm long
2 non-human bone fragments, small animal

Context 333
Temporal bone fragment, left, petrous portion, juvenile
Temporal bone fragment, right, petrous portion, juvenile
4 cranial fragments, 1x1 cm2 to 1x1.5 cm2 in size

4 rib shaft fragments, each about 1-2 cm long, juvenile
Ulnar shaft, left, juvenile, with damage on both ends
Ulnar shaft, right, juvenile, with damage on both ends
Femoral shaft, left, juvenile, with damage on both ends
Femoral shaft, right, juvenile, with damage on both ends
Tibial shaft, unsided, juvenile, with damage on both ends
Humeral shaft, unsided, juvenile, with damage on both ends
Humeral shaft fragment, juvenile, middle 1/3
Radial shaft, unsided, juvenile, with damage on both ends
Cranial fragment, probably malar
Numerous unidentified small fragments

Context 301

Mandibular fragment, with 12 teeth - left side: C, PM3, PM4, M1, M2,
M3; right side: I2, PM3, M1, M2, M3
Mandibular fragment, with 6 teeth - left side: PM4, M1, M2 M3; right side: M1, M2
Isolated 5 molars
Isolated 5 incisors
Isolated 3 canines
Isolated 7 premolars
Maxillary fragment, right, with 5 teeth - C, PM3, PM4, M1, M2
Fragments of two temporals, with EAM
3 femoral shafts
3 tibial shafts
3 humeral shafts
1 humeral shaft, with distal epiphysis
3 fibular shafts
3 ulnar shafts
4 radial shafts
Scapula, right
Os coxal fragment, acetabulum, right
Fragments of 4 vertebrae
Other vertebral fragments
2 os coxal fragments, acetabulum
5 femoral fragments, proximal ends
3 os coxal fragments
4 phalanges
5 MTs
Scapular fragment
Other long bone fragments

Appendix C: Context List

Context	Description	Trench	Stratigraphy	Depth	Notes
1	Uncleared surface	1	same as 2		2008
2	Uncleared surface	2	Same as 1		2008
3	Cleaned surface, compact sandy silt	2	under 2		2008
4	Cleaned surface, compact sandy silt	1	Same as 3		2008
5	Concentration of shells around uprooted tree stump	1	under 1		2008
6	Shell midden with earthenware pottery and animal remains	1	under 4		2008
7	Sandy layer in the NE quadrant	2	under 2	33 cm	2008
8	Mid yellowish brown sandy silt with large concentration of shells - top of shell midden	2	under 7	40 cm	2008
9	Layer of shells with many pottery and animal bones in mid yellowish brown sandy silt	1	under 6		2008
10	Higher density of shells, pottery and animal bones in a mid yellowish brown sandy silt	1	under 9		2008
11	Mid yellowish brown sandy silt with less shells and pottery inclusion	2	under 8		2008
12	Light yellowish brown sand with few shells, slopes southward	1	under 10		2008
13	Posthole at N4E8; half of the feature is exposed adjacent to the east wall profile, cuts from c.10 and through c.12	1	under 9		2008
13a	Fill of c.13 mid yellowish brown sandy silt	1	within c.13		2008
14	Pit at the western end of the north wall. Feature observed only on the vertical profile.	1	cuts through c.10		2008
15	Layer of light yellowish brown sand, coarser than c.12	1	under 12		2008
16	Natural feature staining from plant roots	2	under 11		2008
17	Dark staining filled with charcoal mottling, 15 cm wide,	2	after 18 & 11		2008

18	shell and pottery midden with mid yellowish brown sandy silt (lighter than c.11) , animal bones including	2	under 11		2008
19	Natural feature root action	1	after 18		2008
20	Feature on the southeast wall of N10E12; coral stones suspected to be a possible marker for a burial jar; large Tridacna shell is also present which was similar to one that was found in Trench 4	2	under 18		2008
21	Mid yellowish brown sandy silt, lighter than c.11	2	under 18		2008
22	Combustion feature in N6E8 characterized by dark yellowish brown coarse sand with charcoal bits	1	under 12		2008
23	Natural feature circular associated with shell layer	1	after 11		2008
24	feature of possible jar burial as coral limestone above it may be grave markers (N10E12 southeast corner)	2	under 20		2008
25	Natural feature at N3E8	1	after 12		2008
26	Mid yellowish brown mottled sandy silt with earthenware sherds and shells	1	under 15		2008
27	Light pinkish yellow very coarse sand with a few shells and earthenware sherds	1	under 26		2008
28	Light pinkish yellow very coarse sand	2	under 21		2008 , similar to 27?
29	Natural circular feature created by tree root	2	start at 21		2008
30	Mottled sandy silt with few large coral rocks and pottery sherds	11	Surface?		2010
31	Shell concentration with pottery and animal remains, same as c.509	12	under 43		2010
32	Mottled mid yellowish brown interface directly above jar burials	13			2010
33	Dark greyish brown interface below surface; compact sub layer of c. 51; pottery and modern material	12	under 51		2010

34	Light greyish brown interface found in between the slabs of c.35	12	under 33		2010
35	Coral rocks piled up at northern edge of trench 12, partially exposed as part of Trench 4	12	under 33		2010
36	Dark reddish brown sediment at SW quadrant scatter of pottery sherds, shells and many roots	12	under 51		2010
37	Dark yellowish brown sandy silt at SW part of trench with large shells and pottery sherds	12	under 36		2010
38	Burial jar first uncovered in season 1; against wall of Trench 4	13			2010
39	Mid yellowish grey sandy silt with shell scatter	13			2010
40	Mid yellowish brown fine sandy silt; few shells and pottery sherds	11	under 30?, above 501		2010 - 2011
41	Feature with concentration of charcoal small pottery sherds, shells, corals and plastics	12	above 31		2010
42	mid yellowish grey silty sand with small fragments of human bones	13	under 39		2010
43	Dark greyish brown silty sand	12	above 31, under 51		2010
44	Dark yellowish brown sandy silt ; mottled	14	under 3		2010
45	Mottled mid yellowish brown coarse silty sand	12	under 43	32 cm LDP 4	2010
46	Coral stones & slabs	12			2010
47	Scatter of coral stones at the NE quadrant	13	above 31		2010
48	The same as c,155 in Trench 6	13			2010
49	Mid reddish brown sandy silt with numerous shells	13,14	under 44		2010
50	Isolated crushed human cranium on top of slabs	13	under c.48		2010
51	Surface	4			2008
52	Surface	3			2008
53	Surface after cleaning, Dark yellowish brown sandy silt, mixed artefact scatter	4	under 51		2008

54	Surface after cleaning, mid yellowish brown coarse sandy silt with mixed artefact scatter	3	under 52		2008
55	The same as c. 53 with mix of 20th century artefacts and older	4	under 51		2008
56	First Spit of c.54 N1E15	3	under 52	24-34 cm LDP	2008
57	First spit of c.53	4	under 53		2008
58	Animal Furrow	3	under 56		2008
59	Fill from furrow c.58	3	after 58		2008
60	Second spit in N1E15 of c.54	3	under 56		2008
61	Dark greyish brown clayey sand, same as c.62	4	under 57		2008
62	The same as c.61	4			2008
63	Cluster of coral rocks at N4E18,N5E18, N4,E19; with human remains fragments and pottery sherds	4	under 61,62		2008
64	Pottery sherd concentration at N4E19	4	under 57		2008
65	Loose sediment due to termite activity	4	above 63		2008
66	Compact sediment at W4E18	4	above 61, 62		2008
67	Concentration of pottery sherds at N4E18	4	above 63		2008
68	Jar burial, NW of N4E19	4	under 63		2008
69	Sediment surrounding c.68; mid yellowish brown sandy silt	4	under 68		2008
70	Cranium with long bones along with large pottery sherds new NE corner of N4E19 with large spiral land snail next to cranium	4	above 71		2008
70a	Slab base of cairn-like chamber	4	under 70		
71	Stone slab marker associated with c.70 (cairn like)	4	under c.70,61,62		2008
72	cut of the looter's pit; N5E18, N5E19,N5E20	4	cuts 53		2008
73	Cluster of coral rocks in N5E19 with bone fragments and pottery sherds	4			2008
74	Light yellowish white silty sand	4	under 60		2008
75	Area inside N4E19 same as c.69	4			2008
76	Concentration of human remains at N4E18	4			2008
77	feature darker than surrounding c.60	3	under 60		2008

78	Contents of burial jar underneath the cranium; shell disc, metal implement, spiral shell etc.	4	inside 78a		2008
78a	Jar burial holding c.78	4			2008
79	Jar burial and content, at N4E18, southeast quadrant	4			2008
80	Jar burial at corner of northeast quadrant	4			2008
81	Jar burial in the eastern wall (neonate)	4			2008
82	Jar burial (primary adult) in N4E18, with large slab of coral on top	4			2008
83	Burial jar on north wall of trench	4		top 78 cm LDP	2008
84	Shell concentration exposed in NW quadrant	4	under 57, above 85		2008
85	Mid greyish brown silty sand	4	under 57, above 86		2008
86	Light yellowish brown coarse sand	4	under 85		2008
87	Combustion feature , dark yellowish brown silty sand	9	under 51		2008
88	Concentration of shells within dark yellowish brown sandy silt with pottery sherds	9	under 51		2008
89	Dark yellowish brown silty sand with few shells	9			2008
90	Mid yellowish brown coarse silty sand with numerous shells and few pottery sherds, include 20th century materials	10	under 51		2008
91	dark greyish brown silty sand without artefacts	10	above 97		2008
92	Fine Mid yellowish brown sandy silt with few pottery sherds	9	under 96		2008
93	Mid yellowish brown silty sand with mottling of lighter sand, few artefacts	10	under 90		2008
94	Feature, Mid yellowish brown coarse silty sand with 20th century materials	9	under 51		2010
95	Light yellowish brown coarse silty sand	10	under 107		2010
96	Mid yellowish brown fine sandy silt, relatively compact	9,10			2010

97	Cut of feature	10	cuts through 93		2010
98	Cut of posthole in N2E18	10	cuts 93		2010
99	Combustion feature in N3E19	10	under 107a		2010
100	Shell concentration in dark yellowish brown sandy silt, compact	9	under 101a		2010
101a	compact layer of mid yellowish brown sandy silt with charcoal mottling	9	under 92, above 100		2010
102a	Loose mid yellowish brown sandy silt with pottery sherds	9	under 101a		2010
103a	Coral stone feature	9	under 102a		2010
104a	Mid reddish brown sandy silt with few pottery sherds and 20th century material, same as c.353	9	under 51		2010
105a	Coral slab feature equivalent to c.158 in Trench 13	9			2010
106c	Coral slab feature with shells and pottery inclusions	10	under 107a		2010
107a	Mid reddish brown sandy silt with a few land snails (no more 20th century materials)	10	under 90		2010
108a	Feature with nautilus shells and Tridacna, and pottery sherds associated with coral rocks	10	under 107a		2010
109a	Concentration of coral rocks, shells and pottery sherds	9			2010
110a	Possible burial jar with two Tridacna shells and fragments of human bones	9	under 105a		2010
111a	Mottled mid greyish and yellowish brown sandy silt with many shells and pottery sherds between c.106 and c. 108	10	under 107a		2010
112a	Light yellowish brown silty sand around c.108a	10	above 108a		2010
113a	Circular coral slab, extends to Trench 4, moved jar lid	10	under 96		2010
114a	Coral slabs with a semi-circular array of pottery sherds between slabs	9	under 100		2010
115a	Mid yellowish grey silty sandy	10	under 116a		2010

116a	Mottled layer of predominantly dark yellowish brown silty sand with many pottery sherds	10	under 111a		2010
117a	Feature with combustion remains, dense concentration of pottery sherds ,shells, which includes Placuna placenta pre-forms; feature extended westward beyond trench	10	under 99		2010
118a	Large fragment of decorated earthenware jarlet	9	under 103a		2010
119a	same as 118a	9			2010
120a	Combustion feature with many shells and pottery sherds;	4	under 84, above 85		2010
121a	Burial jar	4	under 84		2010
122a	Burial jar at the northern wall (E18)	4	under 85		2010
101	Surface	5			2008
102	10 cm spit of c.101	5	10 cm LDP		2008
103	Mid reddish brown silty sand	5	under 102		2008
104	surface within fence enclosure	6			2008
105	combustion feature, Dark yellowish brown compact sandy silt;	5			2008
106a	Spit of c.104	6	10 cm LDP		2008
106b	Shell concentration	5	above 103		2008
107	Mid yellowish brown silty sand layer	5	under c.103		2008
108	Mid greyish brown mottled feature at eastern half of trench	6	under 106a		2008
110	Mid yellowish brown sandy silt fill of c.109	6			2008
111	Remnants of coconut tree	6	above 109		2008
112	Back fill material at southern half of trench	6	above 104		2008
113	Shell midden exposed at the SW quadrant, same as c.352	6	under 108	35 cm LDP	2008
114	Light yellowish brown sand without any artefact inclusion	5			2008
115	Water table	5	under 114	102 cm LDP	2008

116	Upper post hole fill for cut 117, mid yellowish grey silty sand at N1E26	5	under 103		2008
117	Cut of post hole with two fills - 118,116	5	cuts 107	57 m LDP	2008
118	Fill of post hole mid greyish brown silty sand with charcoal mottling	5	under 116		
119	Surface sediment	7			2008
120	Dark yellowish brown sandy silt	7	under 119		2008
121	Light yellowish brown silty sand at SW quadrant	6			2008
122	Mid olive brown silty sand with few shell inclusions	6	under 121		2008
123	back fill material at southern edge of trench	6	above 104		2008
124	Mid yellowish brown silty sand more compact than c.120	7	under 120		2008
125	In situ burial jar	6	above 127		2008
126	Mid greyish brown sandy silt ; same as c.515	6	under 132		2008
127	Layer of light brownish yellow sand with no artefact inclusions	6	under 126		2008
128	In situ burial jar with slab cover, next to c.125 jar	6			2008
129	Light yellowish brown silty sand	7	under 124		2008
130	Top of jar burial - sherds	6			2008
131	Burial jar	6			2008
132	Coral slab	6	above 128		2008
133	light yellowish brown sand, sterile	7	under 129	93 cm LDP	2008
134	Cut of post hole	7	cuts 133		2008
135	Fill of c.134 mid yellowish brown	7	under 129		2008
136	Water table	7			2008
137	Coral slab feature same as c.351	6	above 130		2008
138	Surface	8			2008
139	Dark yellowish brown , highly organic	8			2008
140	Light yellowish brown	8	under 139	31 cm LDP	2008

141	Mid yellowish grey feature at east wall	8			2008
142	Disturbed burial jar with bone fragments feature	6	under 142		2008
143	Mid yellowish grey silty sand	7	under 124	43 cm LDP	2008
144	Jar burial west of c.128	6			2008
145	Jar burial north of c.144	6			2008
146	Cluster of bone fragments and jar sherds north of 130	6			2008
147	Coral slabs	6	above 144 & 145		2008
148	Light yellowish brown sand, sterile	8			2008
149	Backfill	6			2008
150	Sediment around and within c.146 probably fill of 146	6			2008
151	Thin layer of mottled silty sand	6	between 106a & 126		2008
152	Coral slab feature	SM1			2010
153	Mid greyish brown sandy silt between c.128, c.127	6	under coral slabs		2010
154	Surface	15			2010
155	Mid greyish brown sandy silt, similar to c.153				2010

Gap: numbers 156-299 unused

300	Fewer 20th century material and more fragments of coral rocks	15		36.4 cm LDP
301	In-situ Jar burial at the south side of Trench 12	12		
302	Mid yellowish brown silty sand, coarse; part of looters pit	13		
303	Left half of mandible with 3 teeth with fragments of adult cranium and long bones at N6E18	13		57 cm DLP
304	Mid reddish brown silty sand with numerous land snails	14		
305	Coral slabs marker at N6E19, next to c.306	13	covers jar c.314	

306	Disturbed burial jar at N6E20, truncated by looters pot	13			2010
307	Mid greyish brown silty sand with shell concentration similar to 153	15			2010
308	Burial jar for neonate, at N6E18,	13	top 15 cm LDP		2010
309	Sediment inside burial jar c.308, Light yellowish grey silty sand	13	after c.308		2010
310	Small concentration of fragmented bones due to looting	13	above c.48		2010
311	Feature in the northeastern corner; tridacna in north wall, with pottery sherds, and various shells	14	above c.312		2010
312	Light reddish brown coarse silty sand that no longer had shell concentration with more earthenware sherds	14	under c.304		2010
313	Mid yellowish brown sandy silt with some shell mottling	15	under 307		2010
314	Small burial jar in N6E19, west of jar c.306	13			2010
315	Tridacna amongst a cluster of various shells and pottery sherds at southeastern corner	14	above 312		2010
316	Tridacna 69 cm west of c.315 at southwest quadrant with bivalve shells and pottery sherds around the tridacna	14	above 312		2010
317	Compact but looser than c.313 with more whole shells clustered new western portion of trench with many pottery sherds and animal bones	15	under 313		2010
318	Light reddish brown silty sand with greater concentration of shells compared to c.312	14	under 312		2010
319	Jar burial exposed beneath tree, adjacent to c.306 & c.314	13			2010
320	Jar burial exposed beneath coral slabs at N6E17	13			2010
321	Tridacna shell arranged with various shells and pottery sherds in mid yellowish brown fine sandy silt at N7E21	11	under 40	41 cm DP	2010
322	Remains of fragmentary in situ jar burial at N7E21	11	under 341	49 cm DP	2010

323	Termite mound, surrounded by context 40 across the whole trench	11	above 40		2010
324	Light yellowish grey silty sand with high shell concentration	11	under 40		2010
325	Burial jar	11	under 40		2010
325a	cut of burial jar c.325	11			
326	Mid yellowish grey silty sand	11	inside 325		2010
327	Light greyish brown silty sand with clusters of pottery sherds and shells including a disturbed fragment of jar burial	11	under 322		2010
328	Mid yellowish grey silty sand with numerous shells	9	under 103a		2010
329	Posthole with fill composed of c. 48 sediments and materials	13	cuts c.48		2010
329a	Fill of posthole cut c.329; with postsherds, shells and near the base of the hole is a juvenile pig mandible and a 12x5 cm wood fragment.	13	under 51	begins at 52 cm LDP	2010
330	Feature with light greyish brown coarse silty sand; shell mottling - remains of a decayed tree	12			2010
331	Remains of highly disturbed burial with bone fragments, glass beads and metal artefact on the coral slabs	13	under 48		2010
332	Burial jar	11	under 327		2010
333	Burial jar in NW corner of N6E17	13	under 152		2010
334	possible Burial jar at western most extent of coral slabs in N6E16	13	under 152		2010
335	Burial jar in NE of N3E19	12			2010
336	Jar burial benaeth eht SE part of the coral slab N5E17, near jar 122a	9			2010
337	Possible jar burial at E17	9			2010
338	Light yellowish brown sand layer slopes north south towards sea	15	under 317		2010
339	Pit feature Mid brownish grey silty sand in the SE quadrant. Starts at the shell layer of c. 317 and cuts through c.338	15	after c.317		2010
340	Cut of pit with fill c. 339	15	before c. 339		2010
341	Stone feature covering burial jars	11	above 332 and 325		2010

GAP: numbers 242-350 unused

351	Same as c.137; Coral rocks and slabs N7E17 same as exposed in 2010	6	under 153		2011
352	Shell concentration the same as c.113	6	under 106		2011
353	Same as c. 104a	9			2011
354	Scatter of human bones west of jar burial c.319	13	under 48		2011
355	Ligth yellowish brown sandy silt with fragments of human remains ,shells and decorated pottery sherds	SM1			2011
356	Mid yellowish brown and high concentration of shells	SM1	under 355		2011
357	Burial jar with a grooved coral slab cover, N5E17	SM1	under c.152		2011
358	Light yellowish brown sandy silt with few pottery sherds and shells	SM1	under 356		2011
359	Shell layer mostly of gastropods, extends from N8E16 to N7E17along the limit of the stone marker	SM1	above 360	50 cm LDP	2011
360	Mid yellowish brown silty sand; similar to c.127 at Trench 6	SM1	under 359		2011
361	Extended burial in the NW oriented SW(head), to NE(feet)	SM1			2011
362	Grave cut for c.361	SM1	cuts 113=352		2011
362a	Grave fill contained shells and pottery sherds	SM1	under 104a=353		2011
363	Jar burial at N7E18/E19	SM1	under 364, part of 152		2011
364	Coral slab on top of c.363	SM1			2011
365	Burial jar at N5E17	SM1	under 152		2011
366	Course light yellowish brown silty sand, with few shells and pottery sherds	15		72.03 cm DP	2011
367	Possible jar burial at E18	SM1	under 152		2011
368	Extended burial within c.366	15			2011
369	cut for burial c.368	15	cuts from c.317		2011
370	Fill of burial c.368	15	under 313		2011
371	Mottling sediment, ligh yellowish grey, same as c.370, found at south of c.368,	15	with. 370		2011
372	Feature, mid yellowish grey silty sand at north of skeleton c.368 (at right arm). Rectanglarish and very thin lens	15	within c.370		2011
373	Isolated mandible on top of coral feature at north end	SM1	above 152		2011

374	Feature discoloraton of sediment,mid greyish yello, by the left arm of c.368, around 22 cm wide	15	within c.370	120.5 cm LDP	2011
375	Cluster of large bivalve shells, gastropods, broken coral stones, northest of c.361 (may be backfill)	SM1		75 cm LDP	2011
376-400					
401	Coral/stone marker	12	under 51	30 cm LDP	2011
402	Light yellowish brown silty sand	12	under 41	54 cm LDP	2011
403	Extended burial in northmost extend of SM2, T12, N4, E21 - burial cut start c.404;	12			2011
404	Grave cut through c.43 and c.31	12	cuts c.43		2011
405-450					
451	Surface of dark yellowish brown sandy silt with charcoal mottling	16			2011
452	Mid greyish brown mottled medium sandy silt; same as c.307 at Trench 15	16	under 451		2011
453	Feature of articulated bones of mammal in NE corner	16	above 452		2011
454	Tridacna shell with a concentration of other shells and pottery	16	under 452		2011
455	Possible post holes	16	cuts 452		2011
456	Shell concentration layer with many pottery sherds and mammal bones	16	under 452		2011
457	Feature of jar cover/inverted bowl with a few animal bones	16	cuts 456		2011
458	Light yellowish brown coarse sand	16	under 456		2011
459	Extended burial ????	12	above coral slabs	corals 56 -58 cm; Cranium 67 cm; humerus 59 cm LDP	2011
460	Fill of 459 burial; with bone fragments, pottery sherds and shells	12			2011
461	Ashy lens notices on the south wall	12			2011
501	Back filled shell concentration	11			

502	Surface of SM3, the same as c.51	SM3			
503	Thin layer of mid greyish brown sandy silt; similar to c.327	SM3	under c 501		
504	Jar burial in N6/7 E12 associated with tridacna shell	SM3	under c.341		
505	Concentration of Jar burial fragments in N6E21, on stone marker	SM3	above c.341		
506	Concentration of Jar burial fragments in N6E21 in sediment	SM3	under c.341		
507	Concentration of Jar burial fragments, top of jar c. 510	SM3	under c.341		
508	Concentration of Jar burial fragments in N6E21, on top of stone marker	SM3	above c.341		
509	Shell concentration with pottery and animal remains, same as c.31	SM3	under 503		
510	Jar burial in N6E21		under c.341		
511	Jar burial in N6E21	SM3	under 341		
512	Jar burial in N6E21	SM3	above c.341	46 cm DP	
513	Jar burial crushed in N7E21	SM3	under c.341	45 cm DP	
514	Jar burial in N6E21	SM3	above c.341		
515	Mid yellowish grey silty sand layer underneath stone marker; jars cut through this layer; same as c.126	SM3	under c.341	40 cm DP	2011
516	Jar burial in N6/7 E12	SM3	associated with above	70 cm DP	2011
517	Possible jar burial in N6E21	SM3		36 cm DP	2011

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